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ABSTRACT

A detailed description is presented for the first year efforts of a 3-year project to demonstrate the application of the cluster concept as an organizational technique to facilitate the delivery of career development skills and occupational preparatory skills instruction. The major product components of the project are (1) a management model, (2) an internal process evaluation, (3) the clustering of vocational/technical curriculum, (4) support components, (5) a career development curriculum, (6) placement services and skills, and (7) career cluster integration, dissemination, and K-14 articulation. Accomplishments during the first year were largely planning and developmental in nature, and concerned management design, instructional strategies, staff training, and curriculum development. The third party evaluation by Carkhuff Associates is included in the document. The results of the compilation of base rate data for evaluation purposes are reported, along with summary statements regarding other major project concerns. The evaluators concluded that the project has effected a solid management base, staff receptivity to project goals, and commitment to training. Appendixes, comprising about half the document, include specific objectives for achieving project goals, anticipated outcomes for junior high, senior high, and area vocational students, and student career development survey forms. (Author/RG)

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ED131328

Interim Report
July 1, 1975 through June 30, 1976

Project No. 502A550010
Grant No. G05.75.00047

Implementation of the Occupational Cluster Concept — A Curriculum Tool for Improving Career Development and Preparation Education

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

U.S. DEPARTMENT OF HEALTH,
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July, 1976

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SUMMARY OF REPORT

This report covers the period of July 1, 1975, through June 30, 1976, and represents the first year efforts of a proposed three-year project.

The overall goal of the project is to demonstrate the application of the "Cluster" concept as an organizational technique to facilitate the delivery of career development skills and occupational preparatory skills instruction. In addition, two important correlary goals are given prominence in the effort. The first is to effect and implement refinements in existing delivery systems and devise new ones where needed to demonstrate a comprehensive vocational education proficiency model inclusive of an individualized learner process approach. Secondly, is to demonstrate concepts and practices which contribute in substantial ways towards removing the current confusion as to the relationship between Career Education and Vocational Education and of each to all of Education. A number of project objectives have been enumerated for each of these goals which offer a further dimension of specificity. The achievement of the project goals and objectives is viewed as the successful establishment of an educational system which enables all parties involved in the educational process (including students themselves) to impact upon predetermined learner outcomes in a much more effective way.

The procedures followed, which operationally define the project design, are predicated on the idea that the project is all that the Area Centers are attempting to be in terms of learning opportunities for improving career development and job preparation skills and, secondly, that these same accomplishments can be applicable to targeted student populations in the participating local school K-12 districts and the community college district.

The first level of project organization involved a generalized description of the scope of work which needed to be done by the various parties impacting upon the student outcomes in the system. This was based upon what was understood to be the requirements of a clustered curriculum. A second step or level of organization had to do with determining the "products" or the tools which were needed to implement the clustered curriculum and to interface the development of those "products" with the appropriate areas of leadership both for planning and development and for their delivery. The detailing of these project products in terms of sub-products and/or tasks resulted in a proliferation of some hundreds of tasks. The third party evaluator, as one of their many contributions to the project management scheme, analyzed the nature of the products and offered a grouping which we view as a third level of organization consisting of seven structural areas that comprise the major components of the project. They are as follows:

1. A Management Model
2. An Internal Process Evaluation
3. The Clustering of Vocational/Technical Curriculum

4. Support Components
5. A Career Development Curriculum
6. Placement Services and Skills
7. Career Cluster Integration, Dissemination, and K-14 Articulation.

These major project components are the vehicles that project staff will use to deliver the project objectives. A functional educational delivery system is viewed as comprised of:

1. The students who are the recipients of the delivery;
2. The teachers, counselors, and aides who make the delivery;
3. The curriculum, programs, and modules that support the teacher's delivery;
4. The instructional managers who develop the curriculum;
5. The inservice trainers who develop the skills of the deliverers;
6. The administrative and support personnel who facilitate all other efforts; and
7. The management personnel who direct the entire operation.

The general developmental phases that emerged from the product identification and detailing were: (1) plan; (2) develop; (3) deliver; (4) evaluate; (5) modify; (6) recycle; (7) monitor; and (8) manage.

Work toward developing a project management system revealed the need to develop a standardized developmental process for all delivery components.

A survey evaluation of programs was conducted as part of the third party evaluator's on-going assessment and monitoring responsibilities to determine the initial developmental level of each program/cluster. The data gathered here was used as diagnostic input for determining the training requirements for delivery staff.

Appropriate models from the most effective educational technology have been selected to systematically train staff to move the major project components through the necessary phases and cycle of planning, development, delivery, evaluation and modification. The models and strategies used to date include:

1. A basic human resources development model of exploring, understanding, and acting.
2. A content management model defining levels of specificity on a scale of missions, goals, objectives, tasks, and steps.
3. A 5-point scale facts through programs for further organizing teaching content.
4. A Show-Tell-Do Method for instructional delivery.
5. A strategy for organizing the teaching delivery in accordance with a review, overview, presentation, exercise and summary treatment.

These models and methods represent the more detailed efforts of developing instruction. Other planning and development efforts have to do with the larger pieces such as the organization of occupationally related job areas or clusters to be used as a basic delivery structure.

Curricula to accomplish the requirements of the Cluster Project at a minimum requires attention to the following areas of student outcome skills:

CAREER DEVELOPMENT
- Self Awareness and Exploration Skills
- Career Awareness and Exploration Skills
- Career Decision-Making and Planning Skills
- Placement Skills

CAREER JOB ENTRY PREPARATION
- Voc./Tech. and Related Basic Academic Skills

The organizational pattern for delivery of career development and preparation curricula may be one of several modes:

1. Single course offerings
2. Infused career development content with a single vocational course offering
3. Infused career development content with a cluster of occupational course offerings.

Regardless of the delivery technique, content is generated basically by the same procedures. Its combination into lesser plans and/or instructional modules and the sequencing may be altered depending upon the delivery plan. The organization of cluster content and delivery for this project is graphically illustrated in Figures 26 and 27 found in the body of this report.

A procedure used as a part of the project management system is the training follow-up memorandum. Here an effort is made to describe the nature of training and its application to program planning and development in effecting a basis for the clustered curriculum. A chronological review of these memorandums (see Appendix G) provides additional insight, helpful in understanding the procedures followed within the overall design of this comprehensive project.

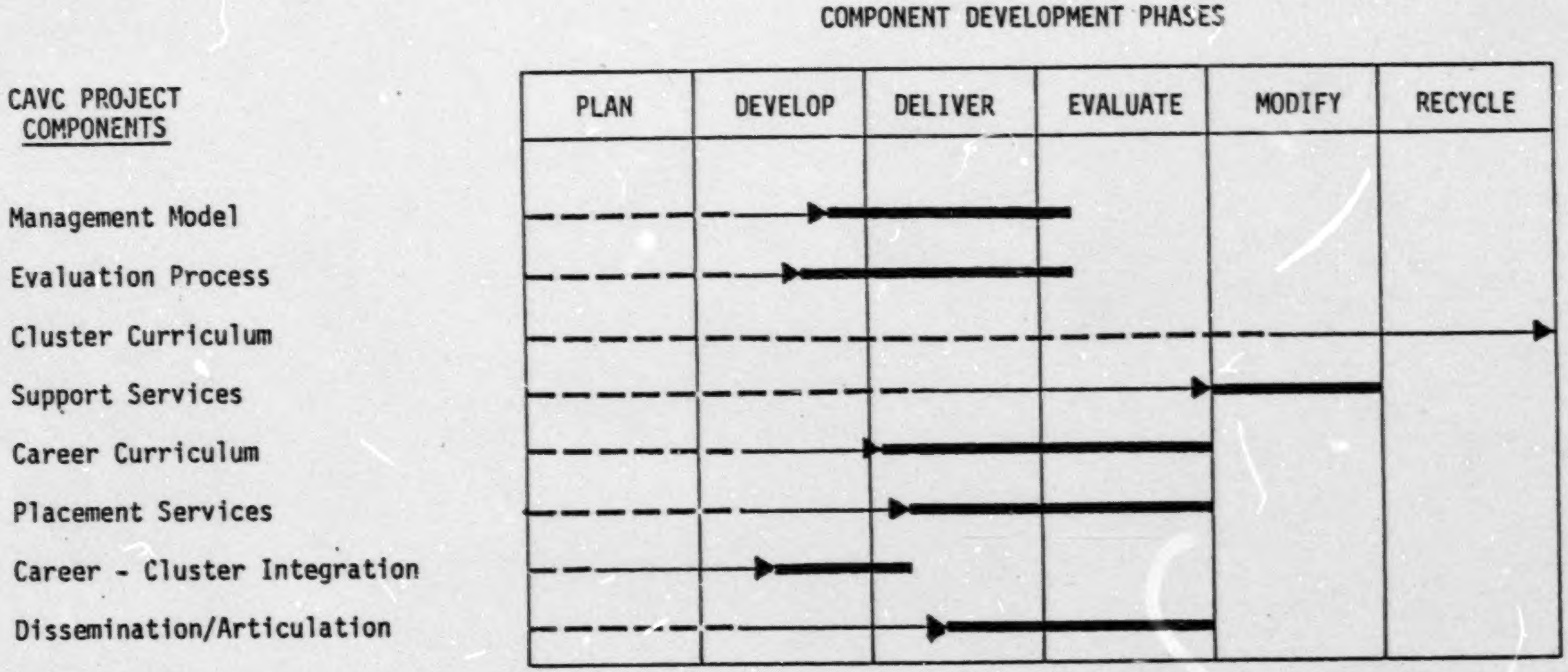
The accomplishments during this first project year are characterized as largely planning and developmental in nature. The project is a comprehensive effort and as such required considerable attention to a wide range of activity and, in particular, much time was given to the project management design itself. As discussed earlier in this summary, the work has been organized in accordance with the major project components of:

1. Management Model
2. Evaluation Process
3. Cluster Curriculum
4. Support Services
5. Career Curriculum
6. Placement Services
7. Career Cluster Integration, Dissemination, and Articulation.

A table of project status, past, present and future, is offered as an overview of this first year relative to the phases that each of the components much move through systematically.

Table 1

Summary of Project Component Status: Past - Present - Future



Legend

- - - - = Reported Progress as of February 18, 1976

——▶ = Current Developmental Status

▬▬▬ = Anticipated Effort by June, 1977

A listing of work products or sub-products, keyed to each project goal and objective, which are viewed to collectively contribute toward the achievement of the project have been logged quarterly and are reported in the body of this report. These products are again largely developmental; i.e., program/cluster career ladders or job hierarchies, occupational task listings, cluster curriculum development model, instructional module development "checklist", learner modules, etc., which are looked upon as prerequisites to an implementation and delivery phase to students. These efforts may be generalized by saying that the major thrusts for the first year have been:

1. Building and improving a project management team that will provide a solid foundation for the completion of the project and continuation thereafter.
2. An examination of curricula to determine with greater clarity what is to be taught in the cluster curriculum.
3. Strategies for integrating career development curricula into the cluster curriculum.
4. Staff training to enable them to deliver the new requirements of the integrated cluster curriculum.
5. Development of initial working relationships, at both the administrative and teacher level, between elementary schools, feeder secondary schools, area vocational centers, community college and business and industry.
6. Development of a skill based vocational and career development curriculum.

The procedures followed relative to methods, materials, instruments and techniques used in gathering base rate data for evaluation purposes is handled with considerable clarity in the third party evaluator's year-end report which is included in its entirety in the body of this report.

Basically, instruments were designed, administered to students, and data organized relative to:

I. A Career Development and Preparation Inventory to elicit the students frame of reference regarding —
   Self Awareness,
   Job Awareness,
   School Awareness,
   Career Decision-Making,
   Career Planning,
   Job and School Acquisition Skills,
   Career Preparation, and
   Meeting Job and School Requirements.

II. Career Development and Preparation Inventory to measure the students ability to perform several skills related to job and self awareness.

III. Career Development and Preparation Inventory to elicit information from students about career decision-making and planning.

IV. Career Development and Preparation Inventory to elicit skill-based data on the students ability to place themselves in the world of work.

V. Career Development and Preparation Inventory to elicit the teacher's frame of reference regarding the extent to which they delivered self awareness, job and school awareness, career decision-making and planning, job and school acquisition skills, career preparation and meeting job and school requirements.

This base rate data will be used in part to measure the success of second and third year efforts which largely involve the delivery or implementation and evaluation and modification phases of the project.

Relative to other project components, the project yielded significant developmental growth. Staff demonstrated a commitment to improve in accordance with the proposed project design and strategies. A core group of staff, "lead horse" group, is being trained and should provide the Center with its own training potential.

Looking toward the second year of project operation, the conclusion and recommendation is that the current direction be maintained and that the additional efforts build upon the foundation laid during this first year. Also, that the educational technology upon which first year training efforts have been based continues and that the monitoring and supervision of that technology becomes an administrative commitment.

BODY OF REPORT --

PROJECT FOCUS -- "ACCESS" TO IMPROVED VOCATIONAL PREPARATION AND CAREER DEVELOPMENT SKILLS TRAINING VIA THE CLUSTER CURRICULUM DELIVERY AND RELATED SUPPORT AND MANAGEMENT SERVICES SYSTEMS.

INTRODUCTION

NEED FOR PROJECT -- LOCAL, STATE AND NATIONAL SIGNIFICANTS

A key word appearing in the statement of purpose of the Vocational Education Amendments Act of 1968 is "Access". The statement declares the Act's overall purpose to be that of providing vocational education opportunities so that all persons

> *"will have ready access to vocational training or retraining which is of high quality,*
>
> *which is realistic in light of actual or anticipated opportunities for gainful employment, and*
>
> *which is suited to their needs, interests and ability to benefit from such training."*

The Michigan State Plan for Vocational and Technical Education states in its introduction that

> "In Michigan, the program of Vocational and Technical Education will be developed around two separate but complementary goals. *First, is the development of human resources through the concept of meeting the needs of the individual.* For far too long, we have made the assumption that simply making a course or program available to people is sufficient. The acquisition of a skill was an end in itself. We must recognize that some people in our society will not take advantage of an available course because they have certain attitudes, fears, misconceptions, or misinterpretations which inhibit their enrollment. Consequently, educators must now develop programs and courses which, in addition to providing a relevant skill, also provide features which develop positive attitudes, allay fears and correct misconceptions and misinterpretations. The acquisition of a skill therefore becomes a means of achieving the greater objective of developing a whole person who can function effectively in all aspects of society. *The other equally important goal, is the simultaneous provision of skilled manpower congruent with the needs of our highly industrialized state.* The efficient development and operation of business and industry is directly related to and dependent upon the abilities of the individuals who support it. Therefore, Vocational Education must develop programs which provide an opportunity for children, youth, and adults to develop to the maximum of their potential."

PROBLEM AREAS -- FLIPSIDE OF GOALS AND OBJECTIVES

INTRODUCTORY BACKGROUND BASIC TO FORMULATION OF PROJECT GOALS AND OBJECTIVES

A review of the major components of Career Education and the presentation of a position taken relative to the relationships among vocational, career, and all of education and between the formal education system and the community provide the basic context from which the project proposal had been developed. The sources of this background review information are the Michigan Department of Education published materials on Michigan Career Education, 1974 and Career Education: A Handbook for Implementation, U. S. Department of Health, Education and Welfare, February 1972. The experiential basis taken in support of the descriptive material presented here are the outcomes from first hand experiences in the promotion and demonstration of K-12 Career Education in this Calhoun-Branch Intermediate School District area.

Career Education has the potential to build a new educational unity. After years and years of practice in delivering to students their education in fragments, putting the pieces together in a meaningful way for them may well appear to be impossible. The contemplated consequences of not being successful in restructuring our educational efforts towards greater effectiveness for the learner should give strong impetus to a more accountable and cooperative effort by all participants in this project.

The basic aims of this effort should be to:

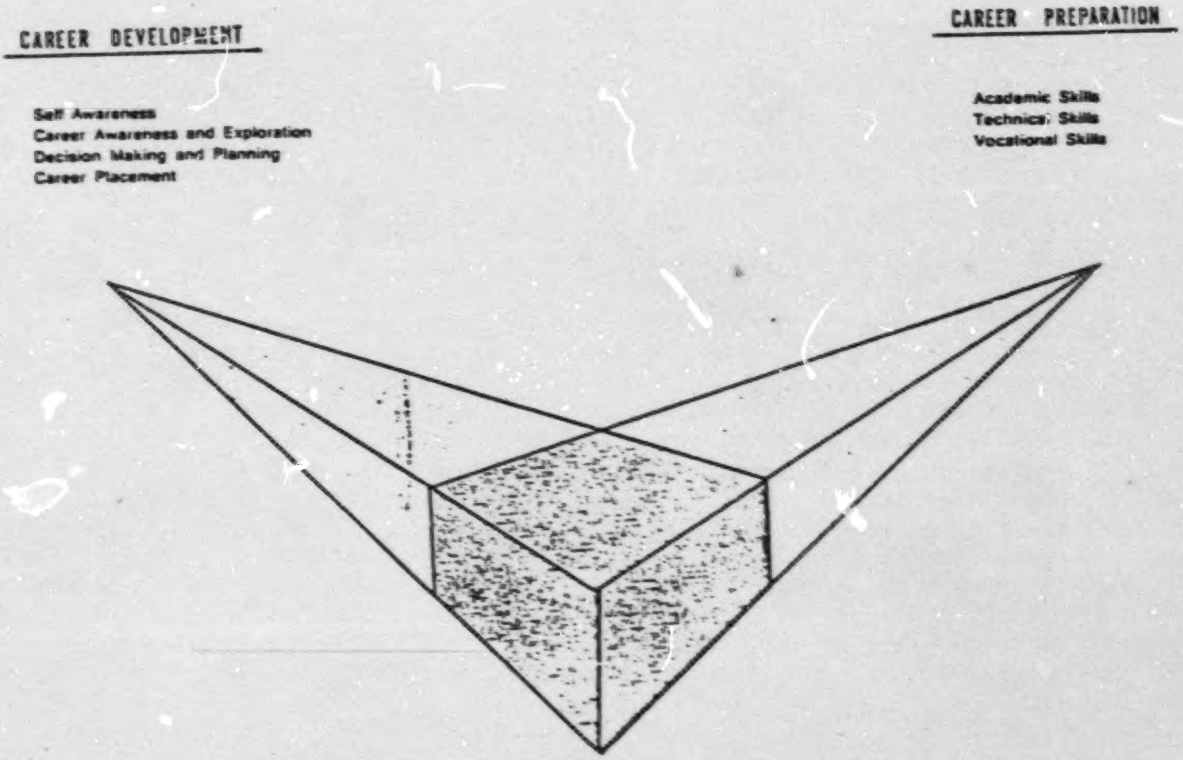
1. Restructure educational programs and instructional approaches around real life activities -- towards living and working.

2. Integrating academic knowledge and basic education skills with career awareness, exploration and preparation skills at all levels of the education spectrum.

The Michigan Department of Education's Model for Career Education identifies Career Development and Career Preparation as the two main thrusts of Career Education. These are graphically represented in the model below. The basic strategy is the integration of career development learning activities designed for skill outcomes relative to the components of self awareness and exploration, career awareness and exploration, decision-making and planning, and goal implementation represented by placement with the career preparation skill outcomes associated with vocational-technical education and related academic skills.

Figure 1

CAREER EDUCATION


CAREER DEVELOPMENT
Self Awareness
Career Awareness and Exploration
Decision Making and Planning
Career Placement
CAREER PREPARATION
Academic Skills
Technical Skills
Vocational Skills

AN INTEGRATED APPROACH

Basic Major Components:

The first component recognizes and capitalizes upon the interrelationships among the home, the family, the community, and the occupational society. The home itself is a work setting. It is also the basic consumption unit of the products of the economy and the services of the community. Basic attitudes toward work and productivity are developed in the home. Family experiences are a major influence on occupational aspirations. The school can identify and point up the meaning of the seemingly ordinary experiences from which lifelong attitudes are formed. Parents can be brought to recognize the impact of their attitudes upon the personal value systems of their children. Students can be helped to make wise personal decisions concerning their roles as family members, as potential parents, and as members of the outside world of careers and service. Girls and women need particular help in preparing for and carrying out the complicated dual role of homemaker and careerist, which is increasingly their lot. A wide array of potential vocational skills can also be experienced and tried out in the home -- food service, interior decorating, clothing design, construction and mechanical skills, etc. — if these opportunities are used constructively.

A second component, a clear responsibility of the school, expects every classroom teacher in every course at every level to emphasize, where appropriate, the career implications of the substantive content they seek to teach. This component cuts both ways, providing more effective job skills while giving meaning and relevance to otherwise abstract academic subject matter. Its goal is to make clear the importance and contribution of such content as preparation for making a living. Hopefully, such an emphasis will provide positive educational motivations that will help make school a meaningful experience for all students. Career implications are inherent in learning experiences from the preschool to graduate school and beyond. Yet this can be accomplished in ways that act in concert with all other sound educational objectives.

The third component is a comprehensive career development program which involves the active cooperation and participation of both school and nonschool personnel. It includes the provision of a variety of means, both cognitive and experiential in nature, for helping students understand and reflect upon the values of a work-oriented society. In addition, this component includes systematic and continuing assistance to students in the educational and occupational choices each must make in the process of his career development. This assistance must encompass helping students to understand themselves, to understand the educational and occupational alternatives available to them, and to choose wisely, based on all such understandings, in ways that fully protect individual freedom of choice. Finally, this component includes helping students implement the choices they have made in ways that will bring personal satisfaction to students and benefit to society.

The fourth component of career education is represented by vocational specialty and general work skills training that will provide students with competencies required for successful entry (or reentry) into the occupational world. The goal of this component is to maximize the quality, appropriateness, variety, and levels of vocational skill training from which the individual can choose. Such training must be demonstrably related to existing and anticipated occupational openings and organized in ways that will allow training opportunities to change with the needs of the occupational society.

A fifth component emerges because to achieve the others requires the cooperation and positive involvement of private and public employers and labor organizations. The classroom is, in many ways, the most sterile of possible learning environments — useful for abstract concepts but with little opportunity to demonstrate "real world" applications. This component includes the provision of work observation, work experience, and work-study opportunities for students and for those who educate students in public school settings. It also involves provision of consultive and advisory services to school officials regarding the nature and needs of the occupational society. It includes training programs conducted in the business and industrial community as well as cooperative school-government business-labor programs designed to assist students in making a successful transition from school to work. But it goes further than that. A knowledge of the economy and its workings, of production processes, of human interaction, of the role and impact of technology and of the complex and growing problems of the physical environment can best be learned as they are experienced. The coordination of such learnings must be accepted as the joint responsibility of formal education and the business-labor-industrial community.

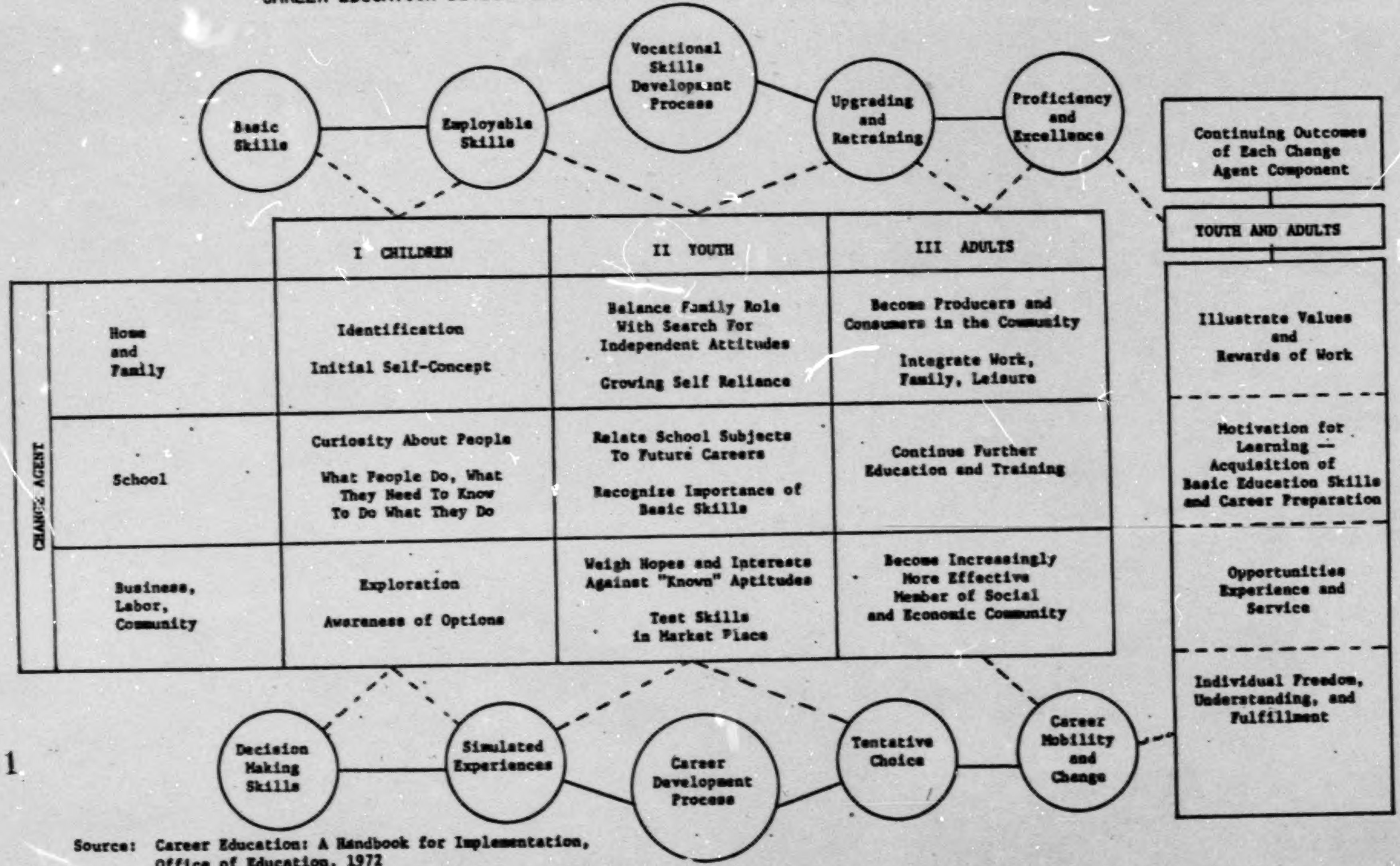
The relationship of these major components of career education to the primary change agents in a career development and preparation matrix citing anticipated outcomes for children, youth and adults is illustrated in Figure 2.

Vocational Education is looked upon as a part of Career Education. Indeed, vocational education is viewed as a part of education rather apart from it. Figure 3 visually illustrates the relationships of vocational, career and all of education.

The school structure with the career education component, inclusive of the role of vocational education, is depicted in Figure 4, Career Development and Preparation Continuum.

Figure 2

CAREER EDUCATION DEVELOPMENT AND PREPARATION MATRIX -- HOME, SCHOOL AND WORK


Basic Skills
Employable Skills
Vocational Skills Development Process
Upgrading and Retraining
Proficiency and Excellence
Decision Making Skills
Simulated Experiences
Career Development Process
Tentative Choice
Career Mobility and Change

		I CHILDREN	II YOUTH	III ADULTS
CHANGE AGENT	Home and Family	Identification Initial Self-Concept	Balance Family Role With Search For Independent Attitudes Growing Self Reliance	Become Producers and Consumers in the Community Integrate Work, Family, Leisure
	School	Curiosity About People What People Do, What They Need To Know To Do What They Do	Relate School Subjects To Future Careers Recognize Importance of Basic Skills	Continue Further Education and Training
	Business, Labor, Community	Exploration Awareness of Options	Weigh Hopes and Interests Against "Known" Aptitudes Test Skills in Market Place	Become Increasingly More Effective Member of Social and Economic Community

Continuing Outcomes of Each Change Agent Component

YOUTH AND ADULTS

Illustrate Values and Rewards of Work

Motivation for Learning — Acquisition of Basic Education Skills and Career Preparation

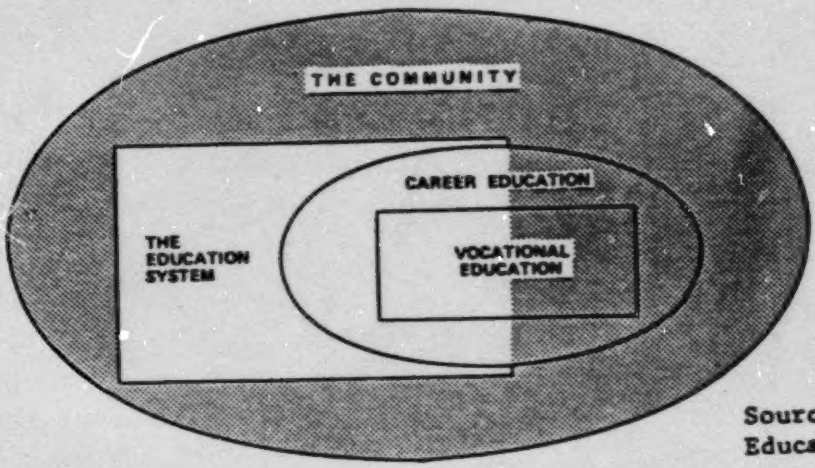
Opportunities Experience and Service

Individual Freedom, Understanding, and Fulfillment

Source: Career Education: A Handbook for Implementation, Office of Education, 1972

Figure 3

Career Education's Place In Education

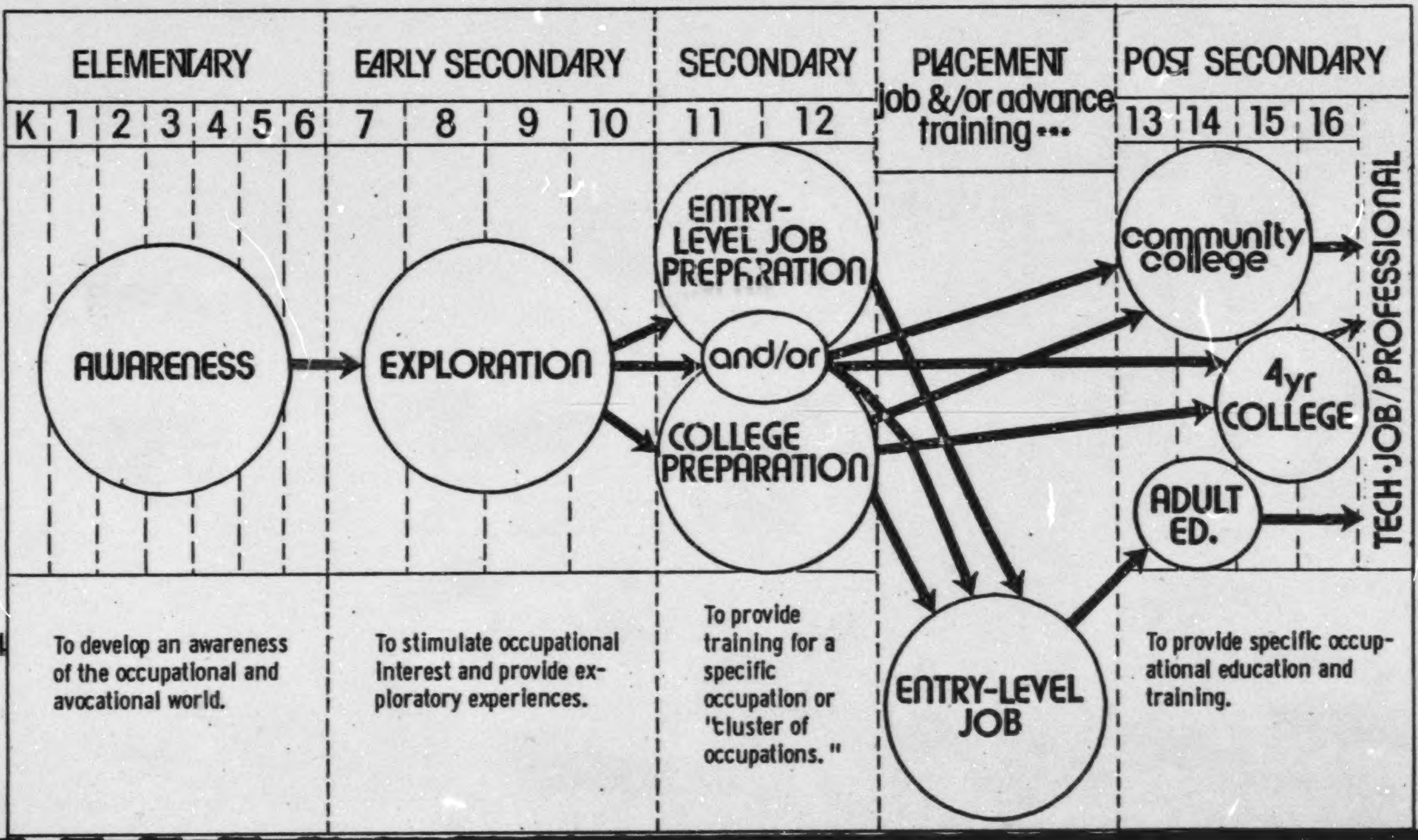

THE COMMUNITY
CAREER EDUCATION
THE EDUCATION SYSTEM
VOCATIONAL EDUCATION

Source: Career
Education Handbook

Figure 4

•SCHOOL COMPONENT--CAREER DEVELOPMENT AND PREPARATION CONTINUUM

LEARNING HOW TO MAKE A LIVING--AN INTEGRAL PART OF THE TOTAL PREPARATORY CURRICULUM FOR LEARNING HOW TO LIVE


ELEMENTARY
EARLY SECONDARY
SECONDARY
PLACEMENT
job &/or advance training •••
POST SECONDARY
K
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
AWARENESS
EXPLORATION
ENTRY-LEVEL JOB PREPARATION
and/or
COLLEGE PREPARATION
ENTRY-LEVEL JOB
community college
4yr COLLEGE
ADULT ED.
TECH•JOB/PROFESSIONAL

To develop an awareness of the occupational and avocational world.

To stimulate occupational interest and provide exploratory experiences.

To provide training for a specific occupation or "cluster of occupations."

To provide specific occupational education and training.

Central to the delivery of career education as a practical approach for helping to make existing school curricula more relevant, a means is needed whereby the world of work can be more adequately represented and organized into a useable curriculum development tool. This is necessary whether the purpose is for development and implementation of awareness, exploration or preparation programs and whether it be for children, youth or adults. The "means" is viewed to be the application of an occupational cluster concept. The effective use of this concept is clearly associated with the ability to achieve the following broad purposes of career education (inclusive of vocational education) for our youth:

1. To give the Nation's young people and adults the flexibility to deal with the changing world of work through their participation in a cluster core curriculum where skills and knowledges taught are common to many occupations and to broaden vocational training by promoting both the lateral and the upward mobility of its graduates.

2. To present to young people and adults, both in our instructional program and in our delivery of guidance services, an obvious ladder of jobs from the skilled through the professional levels and to eliminate the visages of a "tracking system" from the instructional program.

3. To improve the educators' ability to communicate to the general public and to the employing community by providing obvious linkages between the instructional program and the related units of business, industry, the professions, and government.

4. To provide each person leaving the free public school system with an entry-level job skill thereby permitting school leavers exercise the option of either getting a job or pursuing a further education.

The status of cluster curriculum development is well documented by the U. S. Office of Education. The investment by the USOE alone since 1971 has been and continues to be significant. A recently published document, An Annotated Bibliography for the Implementation of Occupational Clusters, edited by Mrs. Joyce Cook, Part D Program Coordinator, Division of Research and Demonstration, Bureau of Occupational and Adult Education, USOE, in collaboration with the ERIC Clearinghouse in Career Education offers further evidence of the interest and varying stages of application of the concept around the country. One such study carried out within the Occupational and Applied Arts Education Unit of the Department of Secondary Education and Curriculum, College of Education, Michigan State University, and supported in part with funds from the Michigan Department of Education is cited here as a document which influenced the selection of the clustering plan to be used in this project.

Many of the problems confronting vocational education as a delivery system in this proposed project area of Calhoun-Branch Intermediate Districts closely parallel those for vocational education generally. Vocational Education Services in the local area have evolved largely within the guidelines of state and federal support and direction. Thus, to whatever extent the state and federal agencies have been and are a part of the problems because of:

a. failures in the use of legalistic statements in definitions that are too limiting and constraining,

b. failures resulting from an unwillingness of vocational educators to accept responsibility for achieving equal results for all students,

c. failures to use or the ineffective use of appropriate advisory groups in program planning and implementation,

d. failures to adequately communicate the goals and objectives of a job-oriented education with sufficient specificity,

e. failures resulting from inadequate representation of occupations in the educational programs,

f. failures resulting from a lack of accountability procedures applied at both the instructional and administrative levels,

g. failures resulting from a reluctance to develop the interdependent relationship amongst the several services within the total educational system,

h. failures resulting from inadequate application of manpower information,

i. failures resulting from ineffective approaches in assisting students with career development and preparation guidance and counseling,

j. failures resulting from non-existant or poorly developed job and/or advanced training placement services, and

k. failures resulting from a lack of focus upon the individual as opposed to the system or the program,

then too, the local districts reflect the same kinds of failures.

A Focus on People or Societal Problems

Some important conditions relevant to this proposal having multi-state and national significance and which provide the basis for the goals and objectives cited in this project are enumerated here:

1. Preparation for entering the "world of work" and assuming an adult role as a producer is more than a matter of learning to market oneself but of discovering oneself. Current school curricular development efforts are not adequately reflecting this basic need.

2. The world of work into which our youth eventually enter from our schools is comprised essentially of a wide range of occupational skills and understandings while opportunities for youth to experience activities preparatory for such a world are comparatively limited.

3. Complete equality of opportunity does not exist in America or anywhere else. Obstacles to achievement exist. They are not the same for all people. Education and work can be a means of understanding ourself and developing capabilities. Knowing how the "world of work" operates can help individuals understand an important part of our environment -- modern technology, the roles of workers, and the social and economic forces that influence our lives. This base of understanding can be useful in helping individuals achieve their expectations. The chances of youth finding meaningful employment and building a life of fulfillment will be greater if schools put more of their thoughts and resources towards an understanding of the world of work. This is true of all youth but perhaps it is the only means for an honest survival for the disadvantaged. Schools by and large have not responded well to the fact that a job creates a style of life for the individual. Its influence extends beyond the place of employment and the length of the work day. The long arm of the job reaches into the home and family, affecting a total way of life.

4. Employers expect their workers to have and/or to obtain in a reasonable period of time the skills and personal characteristics needed to perform their jobs effectively. This includes both productive ability and work attitudes. Knowing what employers expect is an important part of providing realistic world-of-work programs in the schools.

5. The amount of training required of workers is increasing and while it may not yet be economic suicide to enter the manpower market without a high school education, it will certainly be a handicap.

6. Certain basic employment skills such as communications, computation, manual dexterity, and ability to get along with people are durable and transferable skills good for a lifetime. Some of today's specific occupational skills will not be good enough for tomorrow's jobs. Continued education and training is necessary to prepare oneself to meet the challenge of change in the world of work.

7. The biggest percentage of unemployed are the undereducated and/or untrained persons and people who are discriminated against because of race, sex, physical or mental condition, or socio-economic or ethnic background.

Local Problems Pinpointed

The relevant physical, economic, social, financial and institutional problems in terms of both the individual and failures in our vocational education delivery system for the state and nation are generally described and made a part of this section. Their enumeration and discussion here with respect to the local conditions will perhaps pinpoint them more specifically.

1. ADEQUATE NUMBERS OF TRAINING PROGRAMS DO NOT EXIST TO ENROLL THE STUDENTS THAT REQUIRE TRAINING.

   The area plan cites a goal which says, "All students will have acquired general and/or specialized job skills prior to leaving high school regardless of their ultimate career choice." The number of students in grades 9-12 in the service area is approximately 14,000. The annual number of graduates in the local service area is approximately 3,000. The annual dropout number is about 600. The percent of graduates which enroll in two or four-year colleges and universities is 35-40% or approximately 1,000 to 1,200 students. Of those enrolling in post high school education, nearly fifty percent do not complete a four-year program.

   Approximately thirty-five percent of the 6,200 eleventh and twelfth grade students are currently enrolled in vocational courses at the centers. Another fifteen percent are enrolled in local district programs largely made up of home economics, agriculture, and general office.

2. THERE IS INSUFFICIENT VARIETY IN VOCATIONAL OFFERINGS TO ADEQUATELY REPRESENT THE INTERESTS AND APTITUDES OF OUR STUDENT POPULATION.

   The current vocational preparatory course offerings are limited to the following O.E. Coded Programs:

   Agriculture Mechanics
   Ornamental Horticulture
   General Merchandising
   Nursing Aide
   Home Health Aide
   Child Care and Guidance
   Food Management
   Institution-Home Management
   Accounting and Computing
   Auto Mechanics
   Commercial Art Occupations
   Building Trades (In-School)
   Electricity
   Floor Covering
   Building Trades (On-Site)
   Custodial Services
   Drafting Occupations
   Electrical Occupations

Business Data Processing
General Office Clerical
Steno & Secretarial
Secretarial & Clerical
Air Cond./Refrigeration
Auto Body & Fender
Communications
Graphic Arts Occupations
Machine Shop
Welding and Cutting
Cosmetology
Small Engine Repair

Though this list may seem impressive numerically to some school people who are in the habit of thinking in terms of five or six vocational offerings in a system, it is still quite limited when compared to the variety of student interests. A close examination of the listing reveals that a third of the programs are in two general interest areas of clerical and institutional and/or home management. Only two programs are classified as production manufacturing. Four of the programs are visual media design and reproduction. Aside from the powered farm, automotive and small engine vehicle programs, there are only two others that may be considered mechanical in nature.

A second concern with the listing and not necessarily evidenced in the terminology is the narrowness of particular offerings. Examples: a program coded "Electrical Occupations" may indeed by primarily a Radio-TV Repair program; an Electricity coded program may be limited to residential wiring; Drafting Occupations may be Mechanical Drafting, and a Building Trades program may just be carpentry. By whatever taxonomy or classification scheme used to identify the job variables, the present program offerings have some serious limitations when examined in light of the aptitudes, temperaments and interests of our student population.

3. THERE IS INSUFFICIENT VARIETY IN VOCATIONAL OFFERINGS TO ADEQUATELY REPRESENT THE NEEDS OF OUR EMPLOYMENT COMMUNITY.

Some 2,600 students leave the area high schools either by graduation or dropping out each year and immediately enter the labor market. Another 1,000 to 1,200 continue on to school of which most seek some part-time work during the summers and/or school year. In less than two years an undetermined number, perhaps as many as one half of these college bound graduates, will be seeking employment having dropped from a general education curriculum. Using the 2,600 figure alone in relationship to the thirty O.E. Coded Program areas suggests that if they all were to be benefited by the vocational offerings, the labor force would need to absorb better than eighty employees in each of the thirty different occupational areas.

The local employment area is represented by some 3,000 employers. Over 2,400 of them employ less than 20 people; 500 of them employ between 20 and 100; 100 of them employ between 100 and 500; 54 of them employ 500 or more. The manufacturing and non-manufacturing jobs are about equally divided. Nearly ten percent of the non-farm employment is in government services.

4. THE STUDENT'S ACCESS TO VOCATIONAL OFFERINGS IS RESTRICTED due to a lack of preparation for making career choices. Information from students currently enrolling in the two area centers reveal that approximately one-half (50%) enroll in programs for which they have insufficient information to make a training agreement.

5. GUIDANCE AND COUNSELING STAFF ARE HANDICAPPED BY THEIR LACK OF UNDERSTANDING OF VOCATIONAL PROGRAMS AND KNOWLEDGE OF THE WORK WORLD as tools for assisting students in career planning and decision-making.

   The information from students enrolled by local school district guidance staff supports this position. A survey of local area and statewide competencies of guidance and counseling staff further identifies this as a problem. In addition, there is practically no evidence of a formal career planning and decision-making model being employed by local or area center guidance and counseling staff.

6. SPECIAL NEEDS TEAMS FOR THE MENTALLY AND PHSYICALLY IMPAIRED OR OTHERWISE DISADVANTAGED PERSONS ARE HANDICAPPED BY A LACK OF ADEQUATELY DEVELOPED VOCATIONAL PROGRAMS both in terms of breadth of offerings and task specification. They do not have a sufficient base from which to make modifications for such persons.

   Mentally and physically impaired or otherwise disadvantaged students are placed in regular vocational programs following a "work up" by a Program Evaluation and Placement Committee following which special needs supportive staff are to assist in modifying or supplementing these regular program activities. Poorly developed regular programs do not allow for much of a base from which to make modifications or determine the additions required. Nearly 10% of the enrollees in the Area Vocational Centers are mentally and/or physically impaired. Another 15-20 percent are disadvantaged in accordance with state and federal classifications.

7. THERE IS A LACK OF CURRICULAR CONTINUITY AND VISIBILITY OF ITS RELATIONSHIP TO OCCUPATIONAL FAMILIES AND JOB HIERARCHIES to motivate many learners to consider the benefits of continuing education.

Information gathered by instructional managers relative to student commitment toward continued training suggests this problem. Less than twenty percent make plans to continue training. Of this group about one-half continue their training in program areas for which they acknowledged receiving high school vocational training.

8. JOB PLACEMENT SERVICES PERSONNEL ARE HANDICAPPED WHEN COMMUNICATING WITH MANY EMPLOYERS BECAUSE OF VOCATIONAL PROGRAMMING BEING TOO NARROW.

   To whatever extent narrow vocational programming restricts and minimizes options enabling regular students from benefiting, it generally becomes much more so for the mentally and physically impaired and/or otherwise disadvantaged. Vocational programs not offering training opportunities in a range or at a number of ability levels have little utility for the mentally handicapped or disadvantaged. Much too often with this student population there is a good deal of remedial or prerequisite skill development required. Progress up the job training ladder is considerably slower. This range, however, is essential if the student is to be able to identify with some definitive level of accomplishment and which can be described in employability terms.

9. EXISTING STATE GUIDELINES FOR PROGRAM STANDARDS OF QUALITY ARE TOO NARROW in definition and tend to promote practices which are not realistic in accordance with conditions of student enrollment and job and/or advance training placement.

   This position is supported from information cited elsewhere having to do with too few kinds of job training programs for the numbers of students to be served and the varied kinds and amount of work available to employ high school leavers. This coupled with the fact that funding practices with regard to job placement as a program standard of quality does not acknowledge the fact that as many as half the students enrolled in many of our preparatory programs are at best enrolled for exploratory purposes or perhaps to fulfill a graduation requirement.

10. EXISTING PROGRAM FUNDING PRACTICES FOR VOCATIONAL EDUCATION DOES NOT PRESENTLY ENCOURAGE THE KINDS OF PROGRAM DEVELOPMENT WORK NECESSARY TO SUBSTANTIALLY IMPROVE EXISTING PROGRAMS (i.e., modify existing programs to incorporate the cluster concept, costs incurred in effecting adequate manpower information, instructor participation in placement functions, work in behalf of making contributions toward integration of basic education skills into vocational offerings, etc.).

    Local districts must seek and rely on special funded projects to embark upon the kinds of curriculum "overhaul" suggested in the project proposal. Reimbursement or added cost funding policies for operating programs do not provide adequately for improvements but rather only for a maintenance effort.

These kinds of problems are well documented for vocational education. Fortunately, there is a growing effort on the parts of the State of Michigan and the USOE to allocate dollars for development at the local levels. This assistance is a must if conditions are to be brought about wherein the level of program improvement can be translated into meaningful outcomes to the individual. Further, assistance is even more critical in instances where efforts are underway to develop and maintain a comprehensive program of career development, preparation and placement. It is relatively simple to visualize the implications that expanded vocational offerings, through the effective application of the "cluster concept", have for improvements in each of the educational components of (1) guidance and counseling, (2) meeting special needs of mentally and physically and otherwise disadvantaged students, and (3) the job placement efforts in behalf of all students.

Other problems which are identified with the "correlary goals" are discussed here. Failure to accomplish reasonable levels of achievement in resolving them will allow little assurance that "initiatives" demonstrated in the clustering concept will be maintained. Though the "cluster" concept is recognized as a valuable organizational technique to more adequately represent the local, state and national career opportunities in our school curriculums, its effectiveness with regard to upper secondary vocational preparatory programs is largely dependent upon the curriculum design structures within which it is developed and implemented. Coster offers a model for occupational education proficiency designed to give attention to the individual, the occupational structure of work and the changing nature of each as they interact to influence the nature of the curriculum towards optimizing employment. The principles applied are that no educational program is terminal nor is any decision to leave the system irrevocable. Coster's model is one such structure proposed as a part of this project as a useful design for attaching curriculum development problems.

Other models selected for structuring curriculum development and implementation efforts are adaptations of Bela's Instructional Design System and adapted models from the work of Ullery and Burns, A Plan for Learner-Centered Instruction and The Individualized Learner Activity Process within an Instructional System. Each of these models are selected because of their strengths in focusing upon the individual.

In addition to the problems or goals of implementing the occupational cluster concept and of doing it within a planned curriculum structure that demonstrates proficiency in our occupational programs, a third problem area warrants attention as a part of this project. This has to do with demonstrating to all of education concepts and practices which contribute in substantial ways towards removing the current confusion as to the relationship between Career Education and Vocational Education. It is a well established management axiom that solutions

Figure 5

A MODEL FRAMEWORK FOR OCCUPATIONAL PROFICIENCY

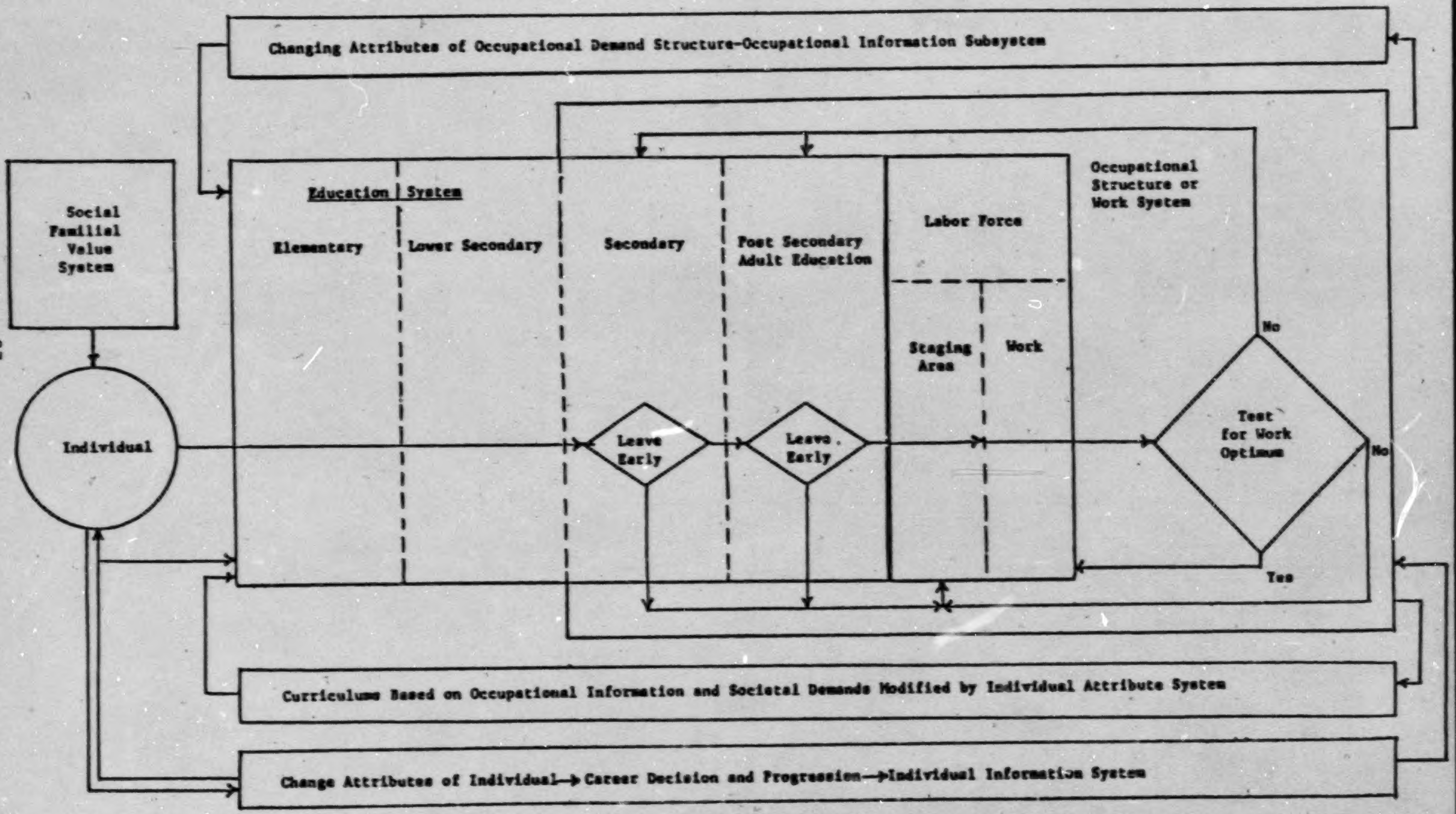
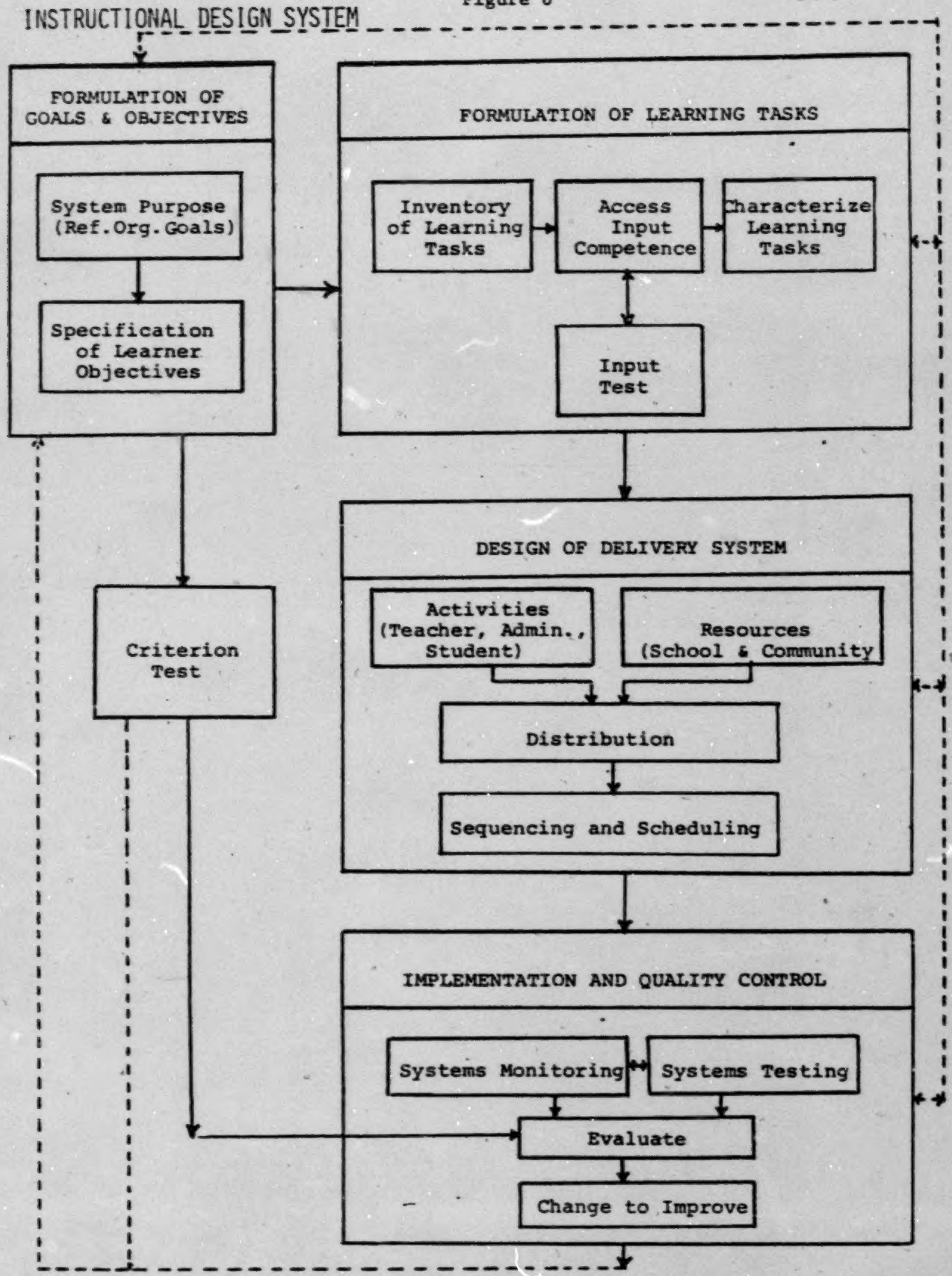
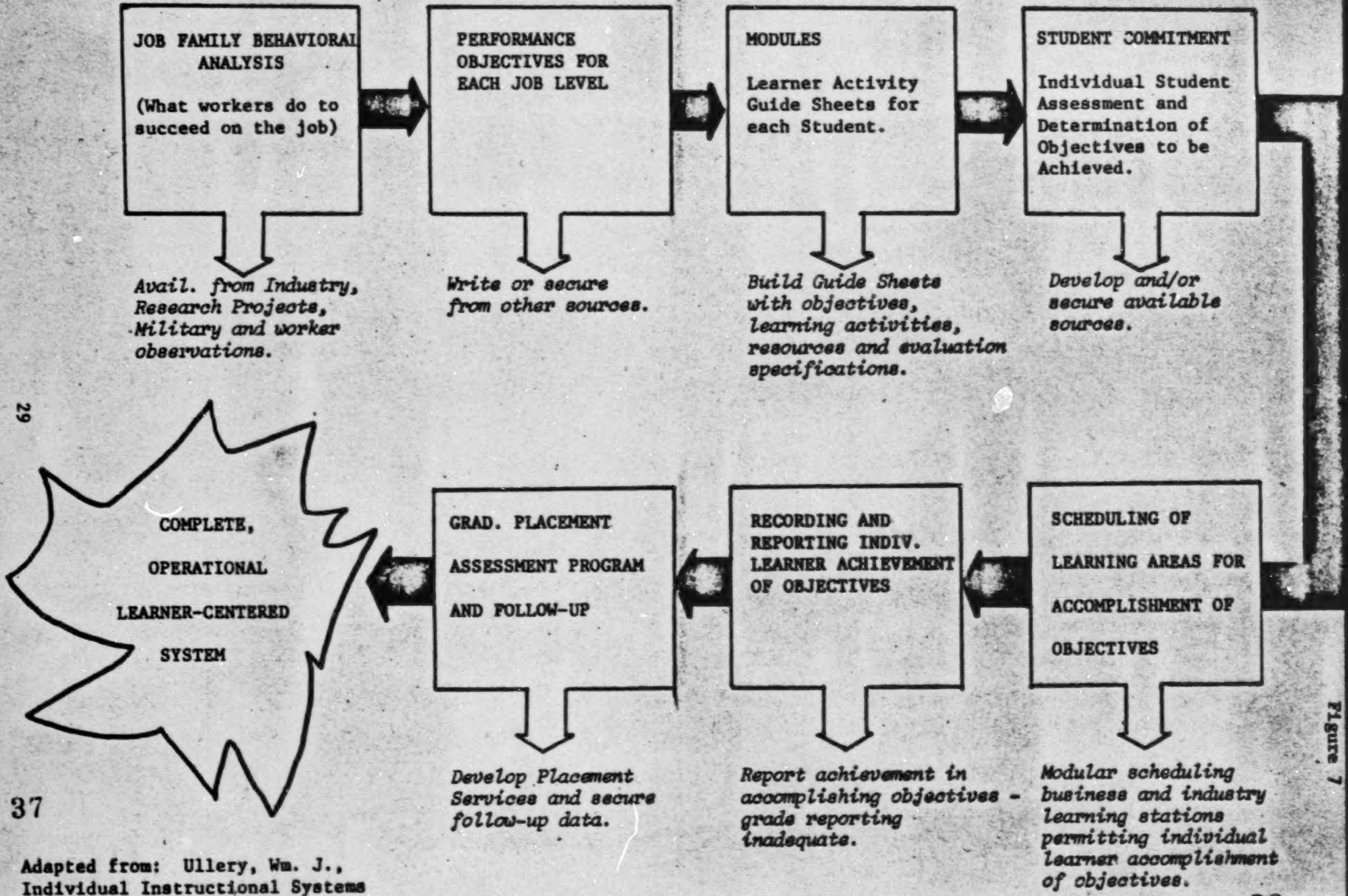

Changing Attributes of Occupational Demand Structure-Occupational Information Subsystem
Social Familial Value System
Education System
Elementary
Lower Secondary
Secondary
Post Secondary Adult Education
Labor Force
Staging Area
Work
Occupational Structure or Work System
Individual
Leave Early
Leave Early
Test for Work Optimum
No
No
Yes
Curriculums Based on Occupational Information and Societal Demands Modified by Individual Attribute System
Change Attributes of Individual → Career Decision and Progression → Individual Information System

Figure 6


INSTRUCTIONAL DESIGN SYSTEM
FORMULATION OF GOALS & OBJECTIVES
System Purpose (Ref.Org.Goals)
Specification of Learner Objectives
FORMULATION OF LEARNING TASKS
Inventory of Learning Tasks
Access Input Competence
Characterize Learning Tasks
Input Test
DESIGN OF DELIVERY SYSTEM
Activities (Teacher, Admin., Student)
Resources (School & Community
Distribution
Sequencing and Scheduling
Criterion Test
IMPLEMENTATION AND QUALITY CONTROL
Systems Monitoring
Systems Testing
Evaluate
Change to Improve

PLAN FOR LEARNER-CENTERED INSTRUCTION -- CALHOUN AREA VOCATIONAL CENTER



JOB FAMILY BEHAVIORAL ANALYSIS

(What workers do to succeed on the job)

Avail. from Industry, Research Projects, Military and worker observations.

PERFORMANCE OBJECTIVES FOR EACH JOB LEVEL

Write or secure from other sources.

MODULES

Learner Activity Guide Sheets for each Student.

Build Guide Sheets with objectives, learning activities, resources and evaluation specifications.

STUDENT COMMITMENT

Individual Student Assessment and Determination of Objectives to be Achieved.

Develop and/or secure available sources.

SCHEDULING OF LEARNING AREAS FOR ACCOMPLISHMENT OF OBJECTIVES

Modular scheduling business and industry learning stations permitting individual learner accomplishment of objectives.

RECORDING AND REPORTING INDIV. LEARNER ACHIEVEMENT OF OBJECTIVES

Report achievement in accomplishing objectives - grade reporting inadequate.

GRAD. PLACEMENT ASSESSMENT PROGRAM AND FOLLOW-UP

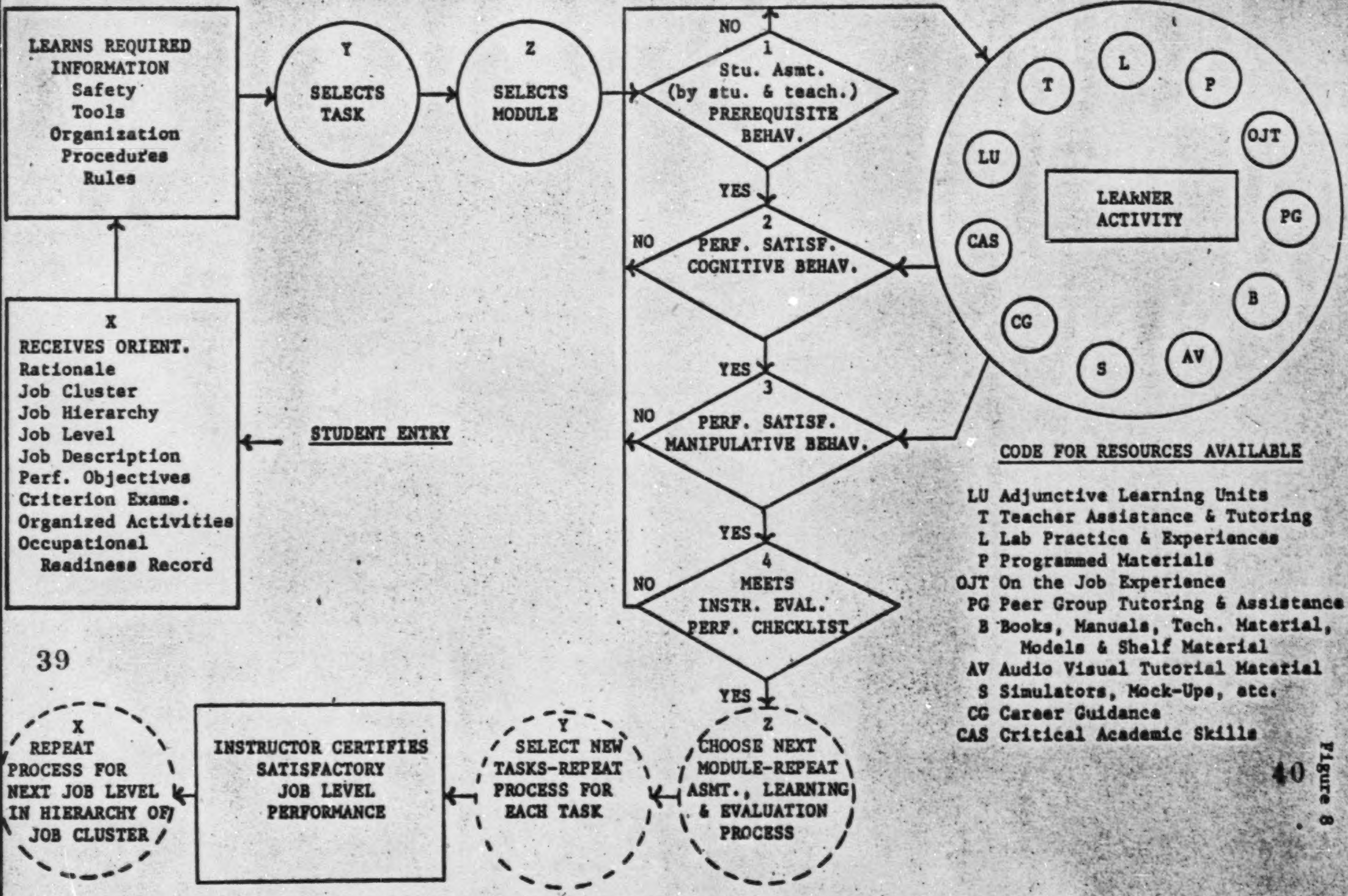
Develop Placement Services and secure follow-up data.

COMPLETE, OPERATIONAL LEARNER-CENTERED SYSTEM

Figure 7

Adapted from: Ullery, Wm. J., Individual Instructional Systems for Vo-Ed, American Institute for Research.

INDIVIDUALIZED LEARNER ACTIVITY PROCESS WITHIN AN INSTRUCTIONAL SYSTEM


LEARNS REQUIRED INFORMATION
Safety
Tools
Organization
Procedures
Rules
Y
SELECTS TASK
Z
SELECTS MODULE
NO
1
Stu. Asmt. (by stu. & teach.) PREREQUISITE BEHAV.
YES
2
NO
PERF. SATISF. COGNITIVE BEHAV.
YES
3
NO
PERF. SATISF. MANIPULATIVE BEHAV.
YES
4
NO
MEETS INSTR. EVAL. PERF. CHECKLIST
YES
LEARNER ACTIVITY
T
L
P
OJT
LU
PG
CAS
B
CG
S
AV
X
RECEIVES ORIENT.
Rationale
Job Cluster
Job Hierarchy
Job Level
Job Description
Perf. Objectives
Criterion Exams.
Organized Activities
Occupational Readiness Record
STUDENT ENTRY
X
REPEAT PROCESS FOR NEXT JOB LEVEL IN HIERARCHY OF JOB CLUSTER
INSTRUCTOR CERTIFIES SATISFACTORY JOB LEVEL PERFORMANCE
Y
SELECT NEW TASKS-REPEAT PROCESS FOR EACH TASK
Z
CHOOSE NEXT MODULE-REPEAT ASMT., LEARNING & EVALUATION PROCESS

CODE FOR RESOURCES AVAILABLE

LU	Adjunctive Learning Units
T	Teacher Assistance & Tutoring
L	Lab Practice & Experiences
P	Programmed Materials
OJT	On the Job Experience
PG	Peer Group Tutoring & Assistance
B	Books, Manuals, Tech. Material, Models & Shelf Material
AV	Audio Visual Tutorial Material
S	Simulators, Mock-Ups, etc.
CG	Career Guidance
CAS	Critical Academic Skills

Figure 8

Adapted from: 1. *Ullery, Wm. J., Indiv. Instr. Systems for Vo-Ed, American Institute for Research.*

to problems also create problems. Because of this to whatever degree a "systems" approach can be applied there should be some decided advantages in effecting the desired outcomes. The implication then is that attempts to resolve problems in the area of vocational education should be partially judged from the standpoint of what those solutions contribute to the whole of education.

Given this perspective, much of the narrative and accompanying illustrations deal with components of the educational spectrum that are viewed essentially and inextricably as a part of a kindergarten through adulthood system of education. These components must have a high degree of articulation if the purpose of the Vocational Education Amendments of 1968 are to be realized.

The development and implementation of ways and means to incorporate career development and preparation into a system so long preoccupied with college entrance expectations is no easy problem. The solving of it requires a renewed and continuing look into the goals of education, commitments, and contributions from all kinds of educators; the so-called generalists, vocationalists, and the academicians at all levels. Further, there must be a willingness to seek and accept the advice of a wide range of school-community interests.

A primary lesson from an examination of current educational structures and practices that ought not go unnoticed is that VOCATIONAL education was and is a good idea except where it becomes a specialty severed from the rest of the educational process and that ACADEMIC preparation and LIBERAL ARTS education, as vital as they could be in developing problem solving skills and a philosophy of life, can result in a disconcerting waste of human potential if not closely keyed to the world of work, family rearing and civic involvement.

The merits in each of these specialties are not to be denied; however, to trust any one of them for the answer serves only to preserve, propagate, and perfect an already outmoded school delivery system. Thus, an important determinant of success in the Implementation of the Occupational Cluster Concepts as a Curriculum Development Tool for Improving Education at whatever levels, will be the degree of "planned" articulation between and amongst existing:

1. Local school and community college academic; liberal and practical arts programs

2. Local school district and intermediate district area vocational programs

3. K-12 Career Education programs

4. Local and intermediate district programs for special education and disadvantaged students

5. Local school district and area programs of guidance and counseling services

6. Post high school vocational, technical, continuing adult education programs.

A further and related determinant will be the degree of interpersonal relationships provided for in the approach. While the concepts promoted, the information dispensed and the educational technology applied are necessary tools, they do not eliminate the need for constant interpersonal exchange between the project staff members and members of each of the educational program areas cited above as well as standing policy and special program advisory committee groups. It is important to be constantly reminded that innovation to become an integral and lasting part of the school system will be the result of its acceptance by school people, parents, and others who either make use of it or in some way are involved with its development.

Some career development concepts which should serve to focus attention on the requirement for articulation within the spectra of education are offered here.

Career Development Concepts

1. An understanding and acceptance of self is important throughout life.

2. Persons need to be recognized as having dignity and worth.

3. Occupations exist for a purpose.

4. There is a wide variety of careers which may be classified in several ways.

5. Work means different things to different people.

6. Education and work are interrelated.

7. Individuals differ in their interests, abilities, attitudes and values.

8. Occupational supply and demand has an impact on career planning.

9. Job specialization creates interdependency.

10. Environment and individual potential interact to influence career development.

11. Occupations and life styles are interrelated.

12. Individuals can learn to perform adequately in a variety of occupations.

13. Career development requires a continuous and sequential series of choices.

14. Various groups and institutions influence the nature and structure of work.

15. Individuals are responsible for their career planning.

16. Job characteristics and individuals must be flexible in a changing society.

GOALS AND OBJECTIVES

1. PRIMARY *GOAL:*

To implement and as a consequence demonstrate the application of the concept of "career clusters" as an organizational technique to facilitate the delivery of career development and occupational preparatory instruction at the high school level in the Calhoun and Branch Area Vocational Education Centers.

Principal Objectives:

1.1 A broadened curriculum offering which is more representative of the jobs existing in the labor force.

1.2 Job preparatory programs which enable the student to equip himself or herself for several job entry options.

1.3 A curriculum in which career options and hierarchies are more visible and which promote the lateral and upward mobility of graduates whether they choose entry into a job or to pursue further education.

1.4 A broadened base of career information formulated to facilitate the comparison of worker traits and individual interests and abilities as input into a student applied career planning and decision-making model.

1.5 An improved ability to communicate vocational education and training program outcomes to the employing community and the related units of business, industry, the professions and government.

1.6 A curriculum which affords greater visibility of job preparatory options for mentally and physically impaired and otherwise disadvantaged students.

1.7 A curriculum structure which enables the individual to pursue his or her interests in a variety rather than one occupational area.

2. CORRELARY GOAL:

To effect and implement refinements in existing delivery systems and demonstrate a comprehensive vocational education proficiency model; inclusive of an individualized learner process approach, as an initial step in translating local district, intermediate district, state, and national goals for occupational education (relative to its contribution towards optimizing employment) into reality.

Principal Objectives:

2.1 Establish more effective systems for accommodating the changing attributes of the individuals entering the occupational training system (student information system).

2.2 Curriculums based on occupational information and societal demands as modified by the student attributes.

2.3 Curriculums reflect the occupational demand structure -- new curriculums developed, outmoded ones dropped.

2.4 Curriculums which reflect continuity from early and upper secondary to post secondary occupational education institutions.

2.5 Delivery systems which allow easy access to the programs once a decision has been reached to leave school.

2.6 Curriculur modules and materials which are effective in terms of attaining objectives and efficient in terms of costs.

3. CORRELARY GOAL:

To demonstrate concepts and practices which contribute in substantial ways towards removing the current confusion as to the relationship between Career Education and Vocational Education and of each to all of Education.

Principal Objectives:

3.1 Established area consensus (intermediate and local participating school districts) and adoption of career education development and preparation models K-14.

3.2 Available "career cluster" information and proposed structures for use by the Calhoun-Branch K-12 Career Education Project for application in the elementary awareness and secondary exploration components as part of the integrated curriculum model.

3.3 Available "career cluster" information and proposed structures for use in Career Education's early secondary laboratory model for career exploration.

3.4 Provide "career cluster" information and proposed structures that contribute to the efforts of the Kellogg Community College to effect expanded offerings of vocational and technical education at the post high school and adult levels.

3.5 Provide assistance to the Instructional Media Services in the organization and correlation of occupational clusters information and structured to the educational goals of the district.

3.6 Operationalize within the vocational centers a career development program thrust as an integral part of each cluster job preparatory program.

GENERAL PROJECT DESIGN

A helpful perspective as an aid to understanding the project design and the procedures followed is one in which;

> first, the project is viewed as embracing all that the Calhoun Area Vocational Center is attempting to be in terms of learning opportunities for improving career development and job preparation skills, and;
>
> secondly, that in whatever ways these primary efforts can be used towards improving outcomes for targeted student populations in the participating local school districts and area community college relative to optimizing a K-16 career development and preparation continuum, program for articulation and dissemination will be developed and implemented as an appropriate contribution to the "whole" of education.

The project approach is developed here first in a generalized perspective followed by a more specific discussion of project design and the procedures followed. The generalized perspective gives consideration to: (1) educational accountability; (2) commitment to capitalize on existing research and other projects; (3) scope of work for project participants; (4) factors likely to accelerate or decelerate work; (5) provisions for maintaining coordination of the project with other programs; and (6) unusual or extraordinary features.

The general framework within which the action plan for accomplishing each of the proposed project goals and principal objectives is largely predicated on the current beliefs and practices existing within the Calhoun-Branch Vocational Education Services which essentially are: first, that instructional program development has been made and accepted as a responsibility of the instructional manager with direction and support from an administrative and consultant team; and secondly, that program development is to evolve within a proposed accountability framework — the Six Step Michigan Department of Education Accountability Model. Thus, the tasks of improving existing programs, in terms of evaluating purposes, identifying goals and objectives, conducting needs assessments, analyzing delivery systems, testing and evaluating those systems and learner outcomes and effecting recommendations is herein proposed as an instructional manager activity. The responsibility for giving direction to a comprehensive program of occupational education in terms of organizing, promoting, coordinating, supervising and evaluating that program is the responsibility of the Directors of Area Vocational Education and their supportive administrative staff. The administrative activities are to be conducted within the same Six Step Accountability Model framework as the instructional managers. Translated in terms of practices and activities, this means that: organizational goals and objectives for Area Vocational Education Services are specified, that needs assessments are conducted, that enabling and enhancing kinds of delivery systems are provided and continually tested and evaluated, and that improved and/or new recommendations are implemented to achieve the organization's goals and objectives.

The current status of accountability within the organization, both in terms of acceptance of the concept and abilities to apply it, allows that the proposed work detailed here for the administrative/instructional manager team, and thus for this project, will be largely "performance contracted".

The general scope of work to be of primary concern to each of the instructional, guidance and counseling and related job placement staff, special needs teacher/counselor teams, and administrative staffs is presented here as an overview. The primary activities for each of the principal objectives of the project are outlined in Sub-Section B of Section 3 in the project proposal. Whenever appropriate, this project shall capitalize upon the research and demonstration projects which have been completed and/or are currently underway across the country. The primary effort calls for selection and adaption of work already accomplished elsewhere and implementing it through a well planned program of personnel commitment, participation and resources allocation.

GOAL AREA #1

Scope of work for the instructional managers is essentially viewed as restructuring thirty (30) existing O.E. Coded Program areas into appropriate USOE identified clusters, identification, evaluation and selection of new program offerings within the USOE cluster or modifications thereof and the development of learner modules for delivery to students. These existing O.E. Coded Programs are listed in Appendix D of the project proposal under Programming for All Students Who Can Benefit from Vocational Education Services.

Scope of work for the guidance/counseling and related placement staff is viewed as becoming knowledgable of the worker trait requirements of the occupations in the varied clusters; researching, evaluating and selection of practices and/or otherwise developing ways and means for assisting individuals to inventory their particular interests and apptitudes; implementing a rational career development planning and decision-making model; inputing information into the developing area job and/or advancement training placement service; and making provisions for a monitoring and evaluation system inclusive of assessing readiness for job placement and assistance with the job entry.

Scope of work for the special needs teacher/counselor team is to evaluate restructured programs and learning modules devised for regular programs and provide provisions in the form of modifications that will enable special needs students to succeed as integrated into the regular program of vocational education.

Scope of work for the administration and administrative program development and consultative staff is to devise an overall plan for effecting a clustered delivery system; provide the enabling resources for conducting the plan; inclusive of instructional manager pre and inservice training and modification and/or additions to space and facilities; a monitoring and evaluation system for both planning and implementation that is coordinated with the Michigan State Plan and the local area plan for vocational education with regard to:
Career Development,
Career Preparation, and
Placement for All Youth.

GOAL AREA #2

Scope of work for the instructional manager, given a model framework for occupational proficiency, curriculum development, and individualized learner process models, revolves around efforts towards: effecting curriculums based on occupational information and societal demands as modified by the individual's attributes; a consideration of the changing attributes of the individual in accordance with career development decisions; attention to the changing occupational demand situation; guiding the individual through series of sequenced learning activities and monitoring his or her progress toward specified outcomes; and providing individual and program adjustments on the basis of testing and evaluation information.

Scope of work for guidance/counseling and related placement staff is to: provide continuing information to local participating schools and directly to students relative to changing occupational demand and changes in individual commitments; monitoring of all students towards achievement of job entry and/or advanced training placement; assistance in testing for student goal achievements.

Scope of work for special needs teacher/counselor team is to: monitor all special education and otherwise disadvantaged students through the systems individualized process model; assisting or supplementing the efforts of the regular instructional managers with regard to identification of appropriate learning performances and instructional delivery systems; gathering and inputing information from the occupational demand structure and changing attributes of the individual particular to mentally and physically impaired and otherwise disadvantaged individuals.

Scope of work for the administration is to: provide the adopted models and related guidelines within which the work of the other members of the system are to function; monitor the instructional manager's application of the models and guidelines; make provisions for preservice and inservice needs; establish the appropriate environments for effective participation by staff; coordinate and maintain the interdependent group efforts amongst the specialized staff.

GOAL AREA #3

Scope of work for the instructional manager is, given a set of reference goals, Area Vocational Education Organizational Goals and Learner Performance Goals Common to All Instructional Programs, to develop a curriculum designed not only to accomplish specific job skills but to contribute toward achievement in areas of student need such as self awareness and positive self image; preparation for making choices; socialization skills, understandings, and attitudes; critical thinking and decision-making skills; economic understandings; preparation for family life; making adjustments to change; basic education skills; etc. It should be understood that the inclusion of these goals is not an attempt to assume total or even major responsibility for learner achievement in these areas. There should, however, be no mistake that the intent is to make a sizeable contribution. The instructional manager is to clearly demonstrate support for and a continuation of reinforcement of those behaviors for which all educators share a responsibility to seek.

Scope of work for guidance/counseling and related special needs staff is to: know the range of programming available to the learners, to help them in the interpretations of the programs, and assist them in matching their needs to particular programs; assist instructional managers in better understanding the needs of individuals and selecting improved approaches to meeting them; and to continually interpret and sell the intended purposes of programs to school people, parents and other community members.

Scope of work for the administration is to: describe the programs for which it is responsible in the context of a total "system" of education; effect a climate of mutual trust and acceptance on the parts of general, academic, and vocational educators; and establish effective processes of cooperatively planned programming; and provide the enabling support to instructional managers that permit them to achieve and to apply practices that do indeed demonstrate an articulated system of education.

Factors which are likely to accelerate or decelerate the work proposed in this project center largely around the level of funding of this and related programs and the "timing" of awards. The best example of this is commitment of funds after the start of the fiscal year (July) and not allowing for adequate use of staff time in the summers in preparation for classroom implementation by instructional managers starting the next school year. The project management plan is designed to accomplish the work largely with existing staff via performance contracts backed by a strong program of preservice and inservice training. Though the performance contracts nor the inservice are restricted to summers, failure to capitalize upon this "time block" definitely decelerates accomplishments. Because of the current achievements and working relationships amongst the varied project participants, there is very little "down time" anticipated for developing work readiness.

The institutional support (Calhoun-Branch Centers) for program and staff development is substantial, however, this is largely accomplished by a coordination with relevant programs supported from a variety of sources. This exemplary project is viewed as no exception. It requires sizeable financial resources not all of which can be nor should be covered by the grant. Failures in state funding of related existing programs in career education, placement, and special needs programs could curtail the scope of this project.

The proposed scope of work, as generally described above for each of the goal areas, to be accomplished by the organization's staff and cooperators, is to be achieved over a three-year period. The primary provisions made for maintaining coordination of this project with other programs or projects with similar or complementary purposes are:

1. The director of this clustering project is also responsible for development of all other area secondary vocational program development projects in this district.

2. The outcomes cited for this project are visibly a part of the Area Plan for Vocational Education in statements of organizational goals and objectives.

3. Each administrative and consultant staff member has his or her job assignment described in terms of the goal requirements of the organization. Specific process objectives are identified in terms of primary leadership and supporting roles to be exercised by each staff member. This practice will embrace this project as well as other ongoing projects and programs.

4. Monitoring of individual and group efforts is facilitated through bi-weekly administrative team meetings.

5. Existing administrative staff evaluation procedures provide for a process of individual and organizational planning.

The unusual or extraordinary features relative to this project are not most prominant in the project itself but are a part of the environment or the context within which the project is to be conducted. They are to be found in the combination of program components which in their relationships one to another contributes substantially to the success of each. Some of these have been referenced elsewhere, however, they are enumerated here:

1. The degree of acceptance of educational accountability by both instructional managers and administrative staff alike.

2. The extent to which practices for improved accountability are being implemented.

3. The evolvement of existing area vocational education and career education services and the continued development with the support and active participation of lay people advisory groups.

4. The degree to which vocational program facilities are available in the service area -- two area vocational education centers and one community college.

5. Work accomplished to date relative to integrating mentally and physically impaired students and otherwise disadvantaged students into regular vocational education programs.

6. Current efforts to establish a comprehensive program of area placement services.

7. The current program of career education being conducted at the intermediate and district levels K-12.

8. The articulation project efforts between the area vocational centers and the Kellogg Community College relative to job entry preparation and continued education beyond high school.

9. The area coordinated program at the intermediate district levels for delivery of data processing services.

10. An area coordinated service for the acquisition and access via bi-weekly delivery and pick up of instructional materials.

11. The extent to which efforts are made to eliminate barriers to unequal opportunities for student access to vocational programs in the area (i.e., the area centers themselves, extended day programming, extended year, satellite centers in the local school districts, area cooperative education, business-industry contracted job training, etc.).

The comprehensive nature of the effort described by the foregoing general scope of work made the decision to concentrate on the developmental aspects of major components this first project year a particularly necessary choice. The interrelatedness of these components requires that they be planned, developed and generally brought along together for optimim effectiveness. Thus, the dialogue which follows is in the context of preparing to impact upon the described student population the second and third years of the project and the actual training of staff with the related information regarding the methods, materials and techniques used to accomplish it.

IMPLEMENTING THE GENERAL PROJECT DESIGN

The CAVC has multiple goals and objectives. These goals and objectives can be factored into two basic areas — management goals and delivery goals. These goals and the primary sub-goals that are derived from them are presented in Table 2.

As can be seen from the table, the management goals emphasize the development of an educational delivery system that is responsive to the needs of both students and staff. The delivery goals presented in Table 1 emphasize the development of a clustered curriculum concept. That is, the delivery components of vocational/technical skills, basic academic skills, career development and placement skills are being organized into a functionally integrated curriculum that will enable students to better meet future occupational and educational requirements. As indicated in Table 1, the management and delivery objectives that are derived from these goals appear in Appendices A through D. Appendix A reflects the broadly stated project goals and principle objectives. The majority of the objectives address organizational and curriculum objectives. The implication is that these organizational and curriculum objectives will create the environment in which students will better learn and be able to apply the student outcome objectives of the project.

Appendix B reflects the learner situations sought via the curriculum development and delivery process. Each instructional manager is expected to operationalize these standard conceptual objectives via his/her curriculum development and delivery, and deliver behavioral and measurable skills to students to enable them to attain these conceptual objections.

Appendix C represents a first pass by CAVC personnel to operationalize the six major outcome areas. The level of operationalization reflected is conceptual. CAVC management has given each instructional manager these concepts, with the intent that each instructional manager will further operationalize the concepts to a behavioral and measurable level.

Appendix D represents CAVC project management's initial understanding of the products that must be completed in order to deliver the project.

Major Components of CAVC's Educational Delivery System

The Calhoun Area Vocational Center has designated the clustered curriculum as its primary delivery goal. The concept of clustering is interpreted by the CAVC administration to mean a grouping of modules or tasks which are common across several program areas. The fundamental principles underlying this program organization are: (1) to increase the student's knowledge of available career options, and (2) to increase the student's potential for entry into a wider range of jobs.

Table 2

OVERVIEW OF PROJECT GOALS

I. Management Goals (See Appendices A and D for objectives.)
To organize, manage, monitor and modify the educational delivery system to improve:
- Educational Planning
- Curriculum Development
- Curriculum Delivery
- Curriculum Evaluation
- Curriculum Modification

While:
- Developing a student information system.
- Insuring continuity across the entire educational system.
- Making provision for participatory project staff.

II. Delivery Goals (See Appendices A, B, and C for objectives.)
To develop cluster curriculum around:
- Vocational Technical Skills
- Basic Academic Skills
- Career Development Skills
  - Self-Awareness and Exploration
  - Career Awareness and Exploration
  - Career Decision-Making and Planning
- Placement Skills

While:
- Linking curriculum to individual characteristics of students.
- Linking curriculum to manpower needs of the community.

Figure 9 illustrates an image of the major components of the CAVC delivery system. As can be seen, the programs represented on the front face of the cube contain program uniqueness as well as their commonalities. The level at which the common ingredients are to be identified has been set at the module level. This is to say, that some programs will have lesson-size units that apply to more than one program area. Thus, a student in an audio-visual program could be presented a lesson in layout along with the students from graphic arts and commercial art. The potential student impact is structurally and functionally more efficient and effective than the isolated program approach.

CAVC currently envisions that each of its programs will systematically incorporate the six major programming strands shown in Figure 9. Thus, for example, each of the programs in the Business and Office Cluster will contain elements of self and career awareness, decision making, placement, academic as well as its own vocational skills content. Where shared modules exist, each of these, in turn, will include representation from each of these strands.

The third face of the existing delivery system model contains the Delivery System Services. These include: needs assessments, instruction, special needs, guidance and counseling, learning resources, placement follow-up, dissemination and articulation.

To achieve the goals and objectives of this project, a list of thirty products have been identified. Each of these products have been analyzed with regard to the milestones needed to achieve them, a time frame for each milestone and the individual or group responsible for the developmental tasks leading up to the completion of each milestone. In simple terms, thirty "what-by-who-by-when" charts have been developed. See Figure 10.

For evaluation purposes, these products were factored against the criteria of function. Thus, on the first cut, three major factors emerged with several additional components which appeared to be unrelated to the three factors or to each other. This is graphically depicted in Figure 11.

In turn, these factors were organized by function and integrated with the project's developmental model. This is shown in Figure 12. As can be seen, the major components of cluster curriculum development, i.e., develop, implement and modify, are addressed as the first major factor. The establishment of a career curriculum has been identified as the second major factor. As can be seen, the development of the career curriculum takes an approach similar to that used for the cluster curriculum. These two factors flow into sequence with the placement and follow-up system products.

The support service interface, the needs assessments and the career information dissemination system products are to be treated both as a part of the primary delivery and management products and also separately relative to those aspects to be articulated and disseminated to target populations outside the Center.

Figure 9

MAJOR COMPONENTS OF CAVC EDUCATIONAL DELIVERY SYSTEM

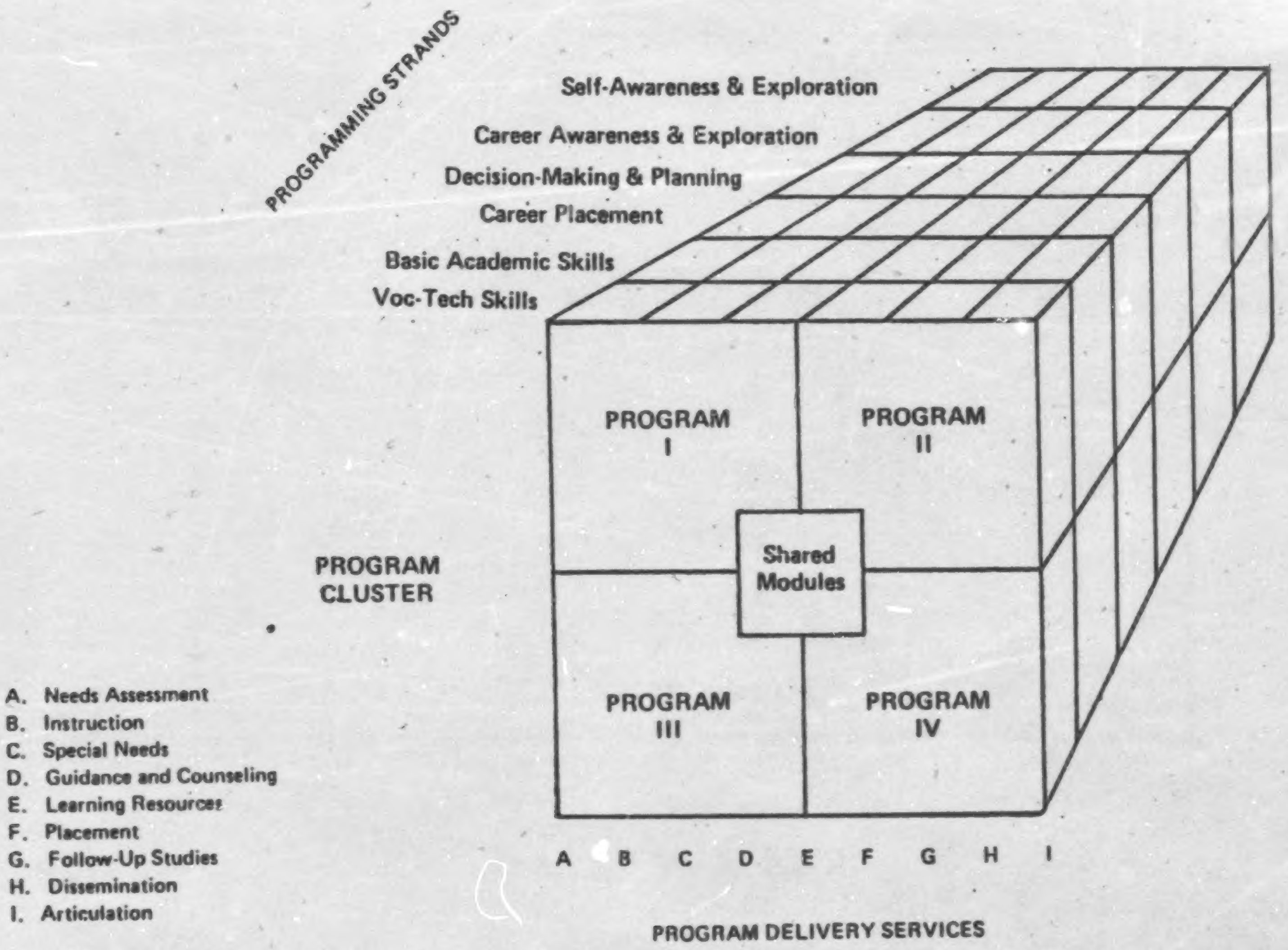

PROGRAMMING STRANDS
Self-Awareness & Exploration
Career Awareness & Exploration
Decision-Making & Planning
Career Placement
Basic Academic Skills
Voc-Tech Skills
PROGRAM I
PROGRAM II
Shared Modules
PROGRAM III
PROGRAM IV
PROGRAM CLUSTER
A. Needs Assessment
B. Instruction
C. Special Needs
D. Guidance and Counseling
E. Learning Resources
F. Placement
G. Follow-Up Studies
H. Dissemination
I. Articulation
A
B
C
D
E
F
G
H
I
PROGRAM DELIVERY SERVICES

Figure 10

GENERIC PROJECT PRODUCT MATRIX

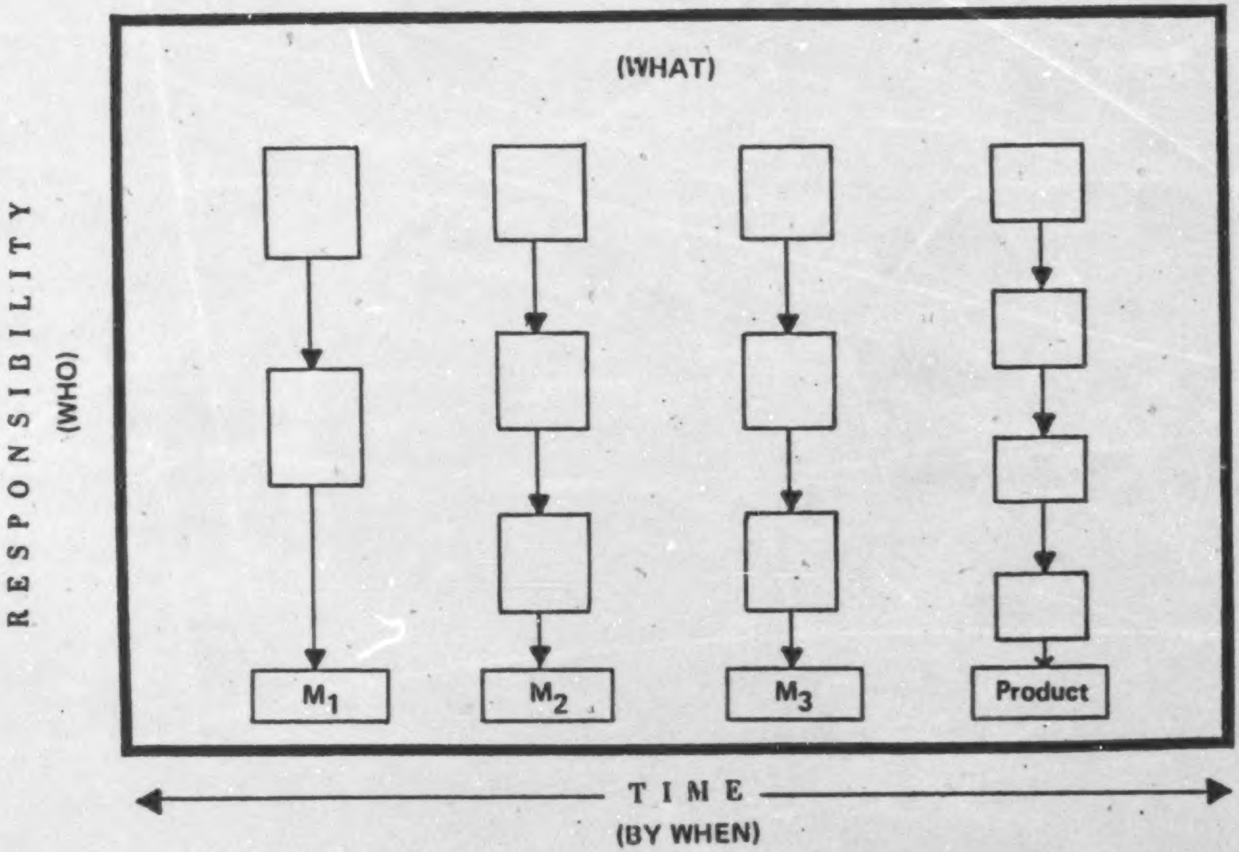

(WHAT)
RESPONSIBILITY
(WHO)
M$_1$
M$_2$
M$_3$
Product
TIME
(BY WHEN)

Figure 11

PRODUCT FACTORS -- I

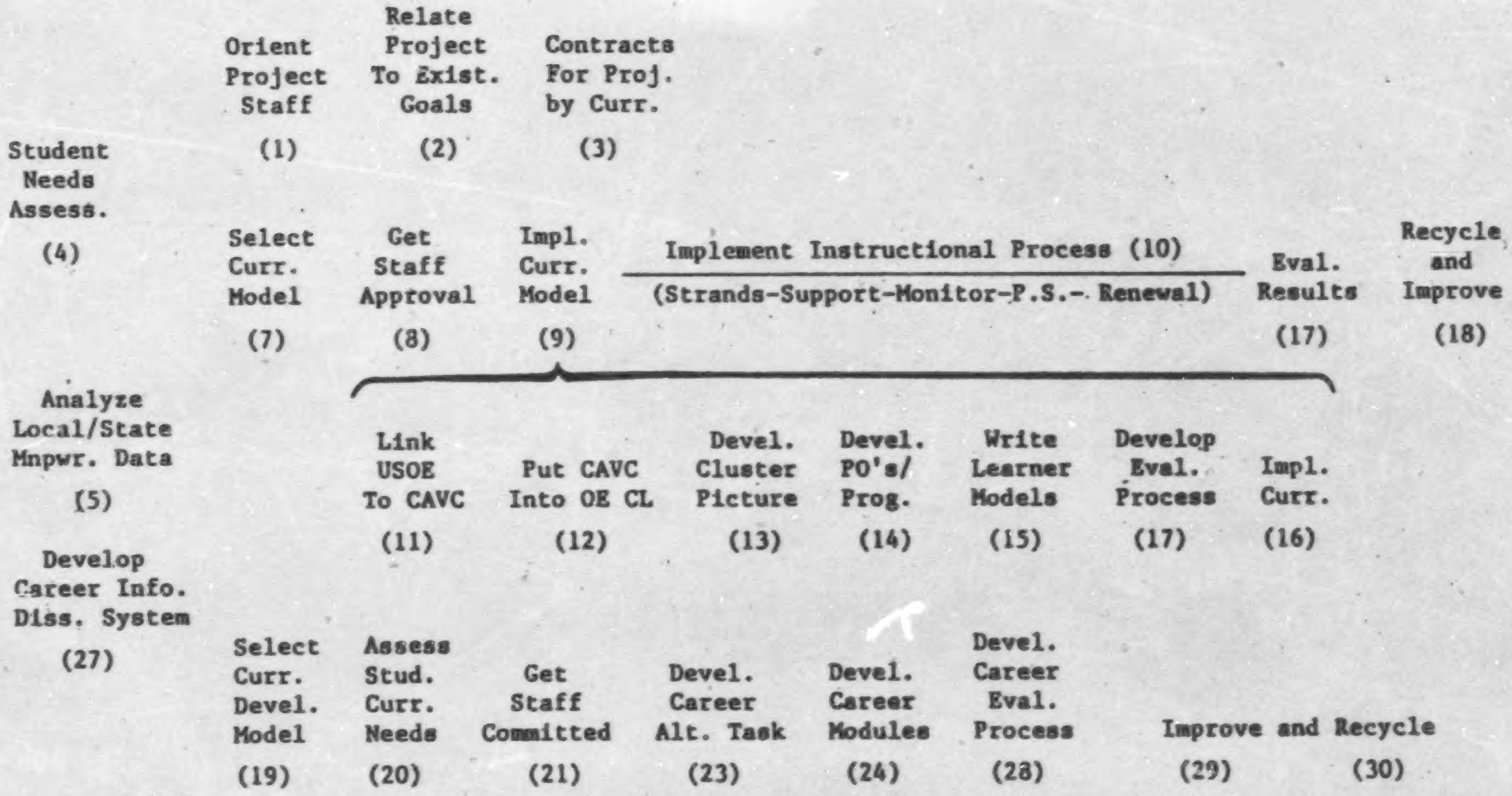
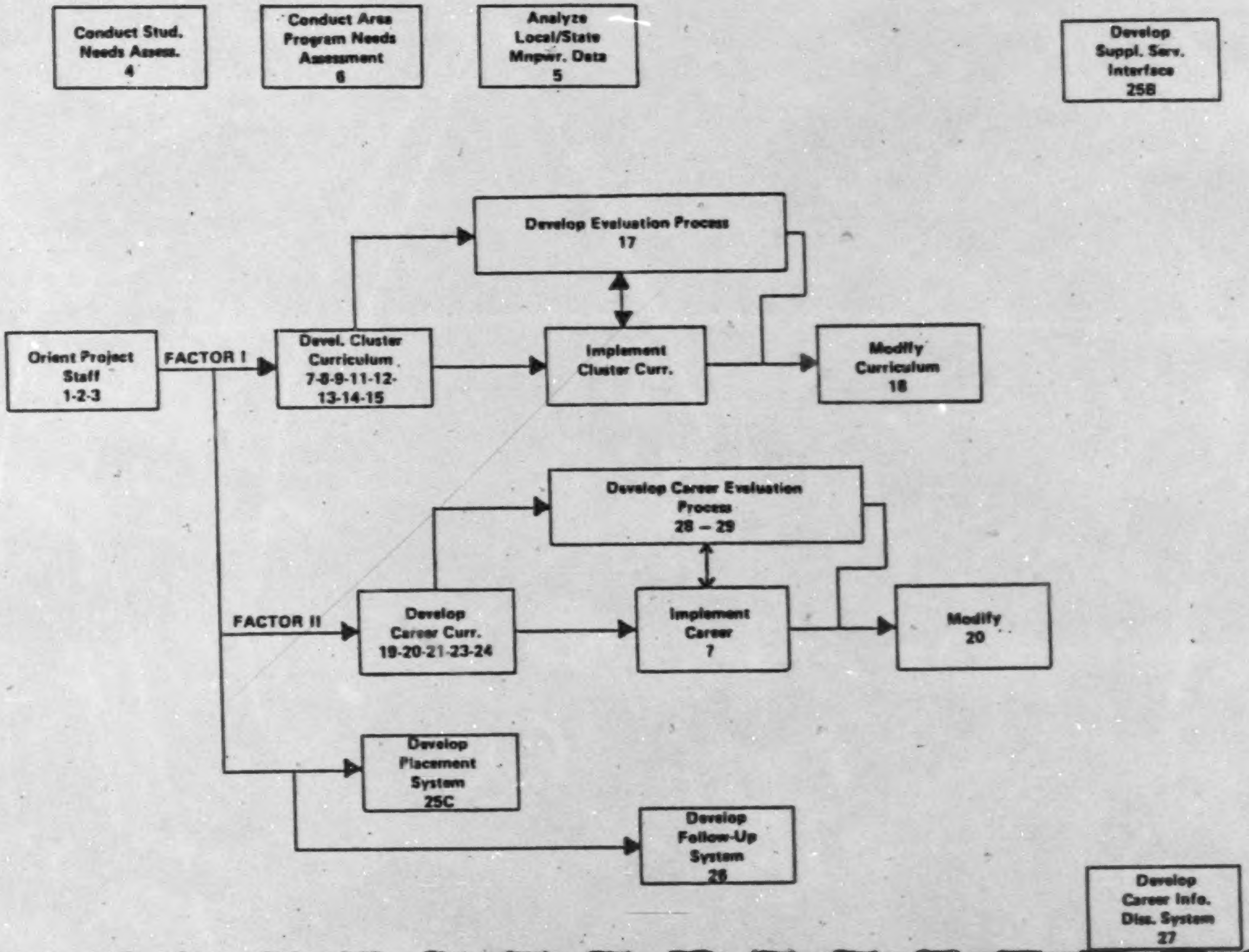

Orient Project Staff (1)
Relate Project To Exist. Goals (2)
Contracts For Proj. by Curr. (3)
Student Needs Assess. (4)
Select Curr. Model (7)
Get Staff Approval (8)
Impl. Curr. Model (9)
Implement Instructional Process (10)
(Strands-Support-Monitor-P.S.- Renewal)
Eval. Results (17)
Recycle and Improve (18)
Analyze Local/State Mnpwr. Data (5)
Link USOE To CAVC (11)
Put CAVC Into OE CL (12)
Devel. Cluster Picture (13)
Devel. PO's/ Prog. (14)
Write Learner Models (15)
Develop Eval. Process (17)
Impl. Curr. (16)
Develop Career Info. Diss. System (27)
Select Curr. Devel. Model (19)
Assess Stud. Curr. Needs (20)
Get Staff Committed (21)
Devel. Career Alt. Task (23)
Devel. Career Modules (24)
Devel. Career Eval. Process (28)
Improve and Recycle
(29)
(30)

Figure 12

PRODUCT FACTORS -- II


Conduct Stud. Needs Assess. 4
Conduct Area Program Needs Assessment 6
Analyze Local/State Mnpwr. Data 5
Develop Suppl. Serv. Interface 25B
Develop Evaluation Process 17
Orient Project Staff 1-2-3
FACTOR I
Devel. Cluster Curriculum 7-8-9-11-12-13-14-15
Implement Cluster Curr.
Modify Curriculum 18
Develop Career Evaluation Process 28 – 29
FACTOR II
Develop Career Curr. 19-20-21-23-24
Implement Career 7
Modify 20
Develop Placement System 25C
Develop Follow-Up System 26
Develop Career Info. Diss. System 27

On a third level of organization, the thirty products can be grouped into seven structural areas that comprise the major components of the project. They are as follows:

1. A Management Model
2. An Internal Process Evaluation
3. The Clustering of Vocational/Technical Curriculum
4. Support Components
5. A Career Development Curriculum
6. Placement Services and Skills
7. External Needs Assessments, Follow-Up, Dissemination and Articulation Efforts.

These major project components are the vehicles that CAVC personnel will use to deliver the project objectives.

Component Development Phases

The over-riding organizational goal of the CAVC project is to develop a functional educational delivery system that can effectively deliver the project's objectives to students.

A functional educational delivery system is viewed as comprised of: (1) the students who are the recipients of the delivery; (2) the teachers, counselors and aides who make the delivery; (3) the curriculum, programs and modules that support the teacher's delivery; (4) the instructional managers who develop the curriculum; (5) the inservice trainers who develop the skills of the deliverers; (6) the administrative and support personnel who facilitate all other efforts; and (7) the management personnel who direct the entire operation.

To develop these components of its educational delivery system, CAVC established milestones for each of its thirty program products (Appendix D). These milestones represent the processes needed to develop each product. Each milestone includes the steps and timelines that various groups of personnel must complete to deliver the milestone, and thus deliver the product.

The milestones were designed to be product specific, so that they could bring control to the process of organizing and managing the initial planning for the development of CAVC's educational delivery system components. They achieved this project management purpose. While they were contributing to an increase in product control, they were also further clarifying the complexity involved in successfully delivering the project's objectives. The milestone charts accomplished this by helping to identify the tasks needed to complete products. Further, a review of the developmental tasks across milestones helped to identify missing products and tasks which would be needed to reach project objectives.

The general developmental phases that emerged from the product milestones were: (1) plan; (2) develop; (3) deliver; (4) evaluate; (5) modify; (6) recycle; (7) monitor; and (8) manage. Each of these was addressed at differing degrees of specificity in each product milestone chart.

Further work revealed the need to develop a standardized developmental process for all delivery system components. At present, CAVC delivery system components are not standardized in terms of their developmental phases. This lack of standardization makes it difficult to compare progress between components and to monitor overall project progress, which in turn makes it difficult to make modification decisions on other than a component by component basis. When considering the large number of different components sharing the common objective of the delivery of skills to students, this lack of standardization makes management and evaluation both difficult and inefficient. That is, the lack of standardization hinders the development and improvement of the total delivery system because it becomes difficult to make judgments about the amount of progress that is being achieved.

Consequently, from the standpoint of both the project's management goals and evaluation objectives, it became essential to establish the standard developmental steps through which all project components are expected to pass (where appropriate) in order to contribute fully to the delivery of project objectives. These standard developmental steps will provide a common basis for eavluating the progress of the many project components, and will give an index of the overall project's level of development. In addition, they will enable management to determine the next steps a component must take in its development.

Table 3 contains the 15 developmental steps for a project component. Each of these steps is further specified by the major sub-steps needed to complete the step.

Figure 13 depicts the relationship among the project component development steps. It would not be expected that every project component must go through every developmental step. When a step is not appropriate, it would be skipped. But the decision to do so should be conscious, rather than have the step skipped by omission.

Table 3
PROJECT PRODUCT DEVELOPMENT STEPS

1. **Plan Program**

Identify where program is.
Set goals for program.
Set milestones for reaching goals.
Assign responsibility for program.
Assign timelines for completion.
(Contract)

2. **Plan Development**

Identify tasks to milestones.
Identify delivery teams for tasks (delivery and support).
Assign people to task teams.
Identify objectives for people.
Develop budgets (time, dollars) for teams.
(Milestone Sheets)

3. **Develop People for Development**

Identify skill deficits.
Develop skill training modules.
Equip people with skills.
Provide people with skill application programs.
Monitor skill applications re: checkpoints.
(Skilled Development People)

4. **Develop Program**

Obtain user input (needs assessment).
Write program skill objectives.
Sequence user skill steps.
Sequence user skill sub-steps.
Write supportive facts, concepts and principles.
(Skill Modules)

5. **Develop Evaluation Design**

Identify evaluation objective.
Identify treatment group and treatment process.
Develop evaluation instruments.
Develop scoring process, instruments.
Identify statistical evaluation procedures.
(Skill Tests)

6. **Develop People for Delivery**

Identify skill deficits.
Develop skill training modules.
Equip people with skills.
Provide people with skill application programs.
Monitor skill applications re: checkpoints.
(Skilled Delivery People)

7. **Deliver Program**

Diagnose user level of functioning.
Obtain user input — goals.
Deliver skills re: learner goals.
Monitor application of skills.
Differentially reinforce performance.
(Skilled Users)

8. **Evaluate Outcomes**

Pre-test users.
Score tests.
Post-test users.
Score tests.
Assess results.
(Impact Results)

9. **Evaluate Delivery**

Develop delivery process objectives.
Develop assessment scales.
Train assessment persons.
Rate delivery process.
Assess delivery impact results.
(Delivery Results)

10. **Evaluate Support Process and Materials**

Develop support process objectives.
Develop assessment scales.
Train assessment persons.
Rate support process.
Assess support-delivery-impact results.
(Support Results)

11. **Modify Delivery Components**

Modify goals.
Modify objectives.
Modify skills.
Modify sub-steps.
Modify facts, concepts, principles.
(Delivery Changes)

12. **Modify Support Components**

Modify responsibilities.
Modify timelines.
Modify budgets.
Modify materials.
Modify evaluation process.
(Support Changes)

13. **Monitor**

Determine monitor units.
Determine monitor timeline.
Determine assessment yardstick.
Assess progress.
Modify based on assessment.
(New Assignments)

14. **Recycle Management Process**

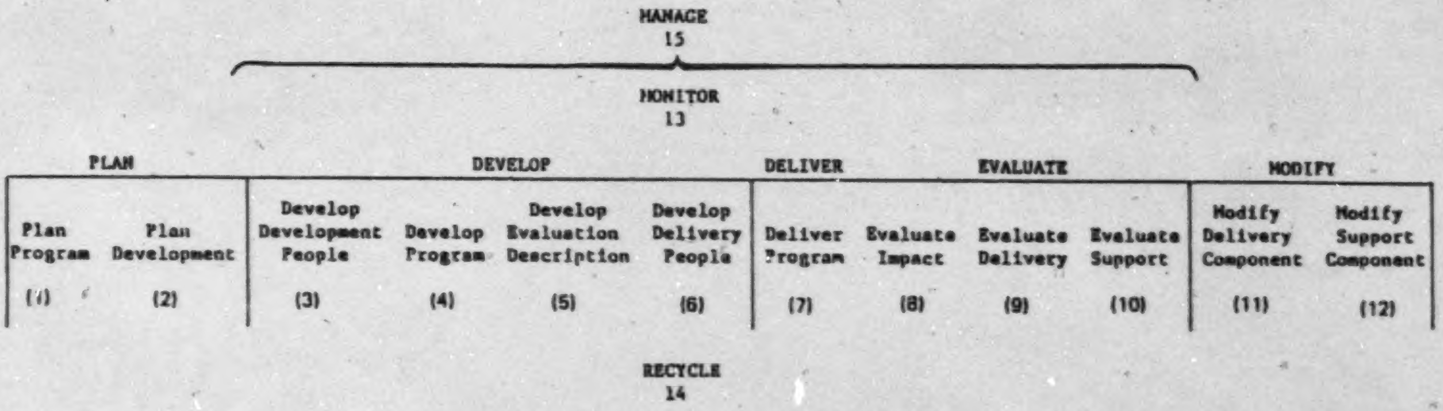
Modify planning process.
Modify development process.
Modify delivery process.
Modify evaluation process.
Modify modification process.
(Program Changes)

15. **Manage**

Determine mission.
Set policy.
Identify decisions.
Assess results.
Make decisions.
(New Policy)

Figure 13

THE RELATIONSHIP AMONG PROJECT PRODUCT DEVELOPMENT STEPS


MANAGE
15
MONITOR
13
PLAN
DEVELOP
DELIVER
EVALUATE
MODIFY
Plan Program (1)
Plan Development (2)
Develop Development People (3)
Develop Program (4)
Develop Evaluation Description (5)
Develop Delivery People (6)
Deliver Program (7)
Evaluate Impact (8)
Evaluate Delivery (9)
Evaluate Support (10)
Modify Delivery Component (11)
Modify Support Component (12)
RECYCLE
14

STUDENT POPULATION TO BE TARGETED

The project will serve a student population drawn from 17 of the 18 secondary local school districts identified in Section 4 of the proposal with a K-12 school population of approximately 50,000. Nearly 16,000 make up the enrollment in grades 9-12 with approximately 7,500 in grades 11-12. Nearly 4,200 eleventh and twelfth grade students are enrolled in reimbursed vocational education programs in the area. Twenty-eight hundred (2,800) are served by the Area Vocational Education Centers.

Special Education Services survey data indicate that nearly 1,000 K-12 students are classified as mentally and/or physically handicapped. The Area Vocational Centers currently enroll 130 from the area high schools. Another 385, or approximately 15% of the enrollment in the Centers, have been identified by State and Federal guidelines as disadvantaged. The number enrolled in local high schools meeting these same guidelines is unknown. As a part of this project, efforts shall be made on an areawide basis to more adequately identify the disadvantaged. This is viewed as a prerequisite for improved program planning and implementation in meeting the particular career development and preparation needs of this relatively large part of our school population.

Appendix C, Outcome Areas and Treatment Groups, more specifically targets the student populations to be served the second and third years of the project and for which developmental efforts have been directed this first year.

INSTRUCTIONAL, SUPPORT SERVICES, AND ADMINISTRATIVE STAFF TARGETED

The training program mission for this project is, of course, to prepare teachers, counselors and administrators for developing and implementing "career clustered" programs of occupational education and to do so within an identifiable proficiency model. For each of these participant groups an outline is offered citing the general training task. Each task is discussed in terms of its purpose, when performed, the type of documentation that will confirm the completion of the task and the procedures involved in conducting the task.

Training Program Objectives

1. To train instructional program managers on curriculum development skills so they can develop the career clusters.
2. To train instructional program managers in curriculum delivery skills so they can deliver the career clusters to students.
3. To train instructional program managers on supervisory skills so they can train and supervise other teachers and aides who will be participating in the delivery of the career clusters to students.
4. To train guidance and placement counselors on career achievement skills so they can help students develop alternatives, make decisions, develop plans and find, obtain and advance in jobs.
5. To train administrative staff in the development and implementation of enabling support systems for implementation of career clusters (i.e., media development, student information systems, expanded instructional delivery systems, evaluation and needs assessment systems, staff professional development systems, student placement and follow-up data gathering systems, etc.).

Task 1: To Conduct a Pre-Training Assessment

Purpose: So that the training program can be planned to meet the unique needs of each trainee population.

When Conducted: Summer and Fall, 1975.

Documentation: A written summary of information collected.

Procedures: Outside consultants will plan and conduct a pre-training on-site assessment of samples of teachers, counselors, administrators and their programs. This assessment will result in information that will be used by the Project Director and consultants to design the specific training programs for the various populations.

Task 2: To Plan the Training Program

Purpose: So that the most efficient and effective procedures will be employed.

When Conducted: Fall, 1975.

Documentation: A written summary of the training program plan.

Procedures: Based on the information collected during the pre-training assessment, the Project Director with consultant assistance will develop training plans. The number and type of trainees to be trained, the skill areas for each group, the length of training, and the training program proper will be finalized.

Task 3: To Train "Lead Horse" Instructional Program Managers — First Year

Purpose: So that they can develop and deliver the career clusters and supervise other teachers and teacher aides.

When Conducted: Fall, Winter, Spring, 1975-76.

Documentation: A written summary of training conducted.

Procedures: Project training staff will work with 30 program managers to orient them to the career cluster approach and the task of developing the career clusters. In addition, consultants will provide the program managers with two weeks of content development training and interpersonal skills training, one week of curriculum delivery skills and one week of training as trainers training. Content development skills training will enable program managers to develop systematic programs that lead the student from where he or she is to performing the job skill. Content development will emphasize the systematic development of the supportive material needed to accompany each of the skill steps developed — identification of the factual information related to the skill step, identification of the proper procedures related to performing the skill step, developing the principles or reasons which enable the student to understand why he or she is learning that skill, and specification of the things the student needs to think about in order to insure that the skill step is done correctly. Interpersonal skills training will enable the program manager to relate more effectively to the student in terms of what the student is asking for relative to his or her need to learn and in terms of what the student is feeling about the content being taught. Questioning skills and learning to learn skills training would be included in this week of interpersonal skills training.

The one-week of curriculum delivery skills training would enable the program managers to diagnose each student's functionality in terms of the skill to be trained, to set individual goals based on the diagnosis, and to deliver programs to the student. Together, these skills would enable program managers to determine where each student is, where he wants to be or needs to be and to develop and deliver to him a program that will help him get there.

The one week of training to be trainers would help prepare the program managers for training with teachers in their cluster areas on the skills discussed above.

Task 4: To Train Counselors

Purpose: So they can help students expand career alternatives; make career decisions; prepare for jobs; and find, obtain and advance in jobs.

When Conducted: Summer, 1976.

Documentation: A written summary of training conducted.

Procedures: Twenty-five guidance counselors and placement counselors will be trained, by project trainers, for two weeks on career development skills. These skills include expanding skills (i.e., expanding career alternatives, sources of information and information seeking strategies), career narrowing skills (i.e., developing values, clarifying values, evaluating alternatives and using their values), career planning skills (i.e., developing potential job opportunities, a resume, a letter of introduction, and interview plans). As part of the learning process, trainees will practice delivering the skills to each other. This would involve learning the interpersonal skills necessary to support the delivery of career development skills. The second week of training will emphasize trainees learning to deliver career development skills in groups. This training would focus on methods that can be used for each skill and practice in actually delivering the career skills in groups.

Task 5: To Provide Follow-Up Training -- First, Second and Third Year

Purpose: To help program managers and counselors apply their skills and to establish a monitoring system.

When Conducted: 1976-77 and 1977-78 School Year.

Documentation: A written summary of training conducted.

Procedures: Project trainers and consultants will provide periodic follow-up training for program managers and guidance counselors and placement counselors during the 1976-77 and 1977-78 school years. This training will focus on helping program managers and counselors to apply the skills they learned during the first year of the project and to assist in the development of a monitoring system that will help evaluate the total career clusters approach. This latter concern will include skills related to collecting, scoring, and analyzing data and incorporating the results in periodic decision-making processes.

Task 6: To Train the "Follow-Up" Group of Instructional Program Managers — Second Year

Purpose: So they can develop and deliver the career clusters and supervise other teachers.

When Conducted: Summer, 1976.

Documentation: A written summary of training conducted.

Procedures: Project staff will work with a second group of 20 instructional program managers to orient them to the career cluster approach and the task of developing career clusters. In addition, consultants will help develop and supervise the training of these program managers. A selected group of program managers who were trained during the previous year will assist in the training. Again, training for the "follow-up" group of instructional program managers will include two weeks of content development training and interpersonal skills training, one week of curriculum delivery skills, and one week of training as trainees training. As before, these skills would enable program managers to develop and deliver career clusters to students and to train other teachers to do likewise.

Task 7: To Provide Follow-Up Training -- Second Year

Purpose: To help program managers, counselors and teachers apply their skills and to monitor their progress.

When Conducted: 1976-77 school year.

Documentation: A written summary of training conducted.

Procedures: Consultants will provide supervision for periodic follow-up training that will be provided by first and second year program managers. Again, this training will focus on helping the staff to apply their skills and to monitor their overall effectiveness and efficiency.

Task 8: To Train Administrators

Purpose: So they can provide the instructional managers and counselors the necessary supportive services.

When Conducted: June 1975 through 1977 school year.

Documentation: A written summary of training conducted.

Procedures: Based upon information collected during the pre-training assessment, administrative team and individual administrator training needs are to be identified, prioritized and organized into a continuing monthly inservice training program. The presently used "Individual Administrative Planner" and system for performance evaluation for administrative accountability and professional development will be used as the vehicle for "ordering" a planned inservice program. Like for the instructional manager, administrative staff performance goals cross referenced to the goals and objectives of the organization will serve as references for pre-training assessment and planned inservice training.

CALHOUN AREA VOCATIONAL CENTER STAFF

NAME	CERTIFICATION	PROGRAM
Alan Adler	BS	Graphic Reproduction
Barb Atkins	BS	Tailoring/Alterations
Evelyn Atkinson	Voc.	Nurse Aide
Nate Avani	Voc.	Data Processing
JoAnne Boston	Voc.	Secretarial Practices
Woody Bowers	Voc.	Electricity
C. Richard Brown	Voc.	Building Trades
Hugh Collie	Voc.	Building Trades
Donald Conklin	Voc.	Building Maintenance
Irene Cope	Voc.	Food Service
Cheryl Costley	BA	Child Care
Norm Curtis	Voc.	Auto Body
Laura Dean	Voc.	Health Occupations
Connie Dillard	BS	Secretarial Practices
Gail Dunham	BS	Secretarial Practices
Dave Geary	BA	Auto Mechanics
Richard Glass	Voc.	Health Occupations
Malcolm Graham	BS	Landscaping
Gary Hollenbeck	MA	Drafting
Alice Holub	Voc.	Health Occupations
Judy Huffman	BS	Secretarial Practices
Lanny Johnston	BS	LRC
Ken Kuchenreuther	Voc.	Ind. Truck/Small Engines
Bob McAlear	BA	Food Service

NAME	CERTIFICATION	PROGRAM
Ida McCray	Voc.	Food Service
Charles McGee	Voc.	Food Service
Lillian McGee	Voc.	Cosmetology
Ted Ohler	BS	Industrial Machines
Dale Schoonard	Voc.	Welding
Woody Sellers	BS	Building Trades
Mike Skartsiaris	Voc.	Auto Mechanics
Walter Smith	Voc.	Auto Mechanics
Ruth Snyder	MA	Retailing & Marketing
George Streeter	BS	Radio & TV
Ivan Thompson	BA	Accounting
Patience Vaughan	MA	Commercial Art
Mary Lou Weddle	Voc.	Health Occupations
Sally Wiler	Voc.	Cosmetology
Amy Williams	BS	Secretarial Practices
Paul Williams	MA	Agricultural Mechanics
Moses Young	Voc.	Food Service
William Young	Voc.	Commercial Art

SECRETARIAL STAFF

Ona Armstrong
Mary Bates
Diane Cole
Bernie Jozwiak
Ann Pointer
Roxanne Price

AIDES

Gene Decker	Auto Mechanics
Linda Emerson	Secretarial Practices

NAME	CERTIFICATION	PROGRAM
Art Farmer		Welding
John Finch		Auto Body
Mike Fisher		Visual Communications
Jeannie Frayer		Secretarial Practices
Vi Hazen		Food Service
Ruth McMickens		Inst./Dom. Service
Julie Shaver		Data Processing
Kim VanOrder		Industrial Machines
Janice Vogel		Child Care
Robin Fredenberg		Data Processing
SPECIAL NEEDS		
J. Patrick Egan	MA	Director of Special Needs
Wayne Booton	MA	Area-Wide Coordinator
Donna Cole	MA	
Jim McKinney	MA	
Fred Robinson	MA	
Ernestine Thompson	MA	
Doug Voshell	MA	
ADMINISTRATION		
Clifford O. Jump	MA	Director
Harry Miller	MA	Curriculum Development Spec.
Robert A. Harberts	MA	Assistant Director
J. Patrick Egan	MA	Director of Special Needs
Barbara Rupp	MA	Director, Placement
Franjean Oldham	MA	Director, Placement

BRANCH AREA CAREERS CENTER STAFF

NAME	CERTIFICATION	PROGRAM
Ledward Smith	Voc. and Degree	Farm Management & Ag. Bus.
Charles Snyder	Voc. and Degree	Farm Management & Ag. Bus.
John Trott	Voc. and Degree	Ornamental Horticulture
Dave Johnson	Voc. and Degree	Distributive Education
Mrs. Sara Ball	Voc.	Health Occupations
Miss Nancy Secor	Voc. and Degree	Child Care
Mrs. Elaine Foster	Voc.	Food Service
Mrs. Sue Maxson	Voc. and Degree	Office Education
Mrs. Mary Wogerman	Voc. and Degree	Office Education
Bill McMillan	Voc.	Mechanical Systems
Ken Drayton	Voc.	Electricity & Electronics
Joe Bakle	Voc.	Auto Body
Rick Furney	Voc. and Degree	Auto Mechanics
Jim Shaw	Voc. and Degree	Auto Mechanics
Richard Aldrich	Voc.	Visual Communications
Don McCurley	Voc.	Building Trades
Larry Brueshaver	Voc.	Power Mechanics
Robert Cook	Voc. and Degree	Drafting
Mike Beckwith	Voc. and Degree	Metal Working
Mrs. Norma Rupp	Voc.	Cosmetology

PARA-PROFESSIONALS

Mrs. Mary White	Health Occupations
Ron Scantlen	Building Trades
Don Hunker	Mechanical Systems

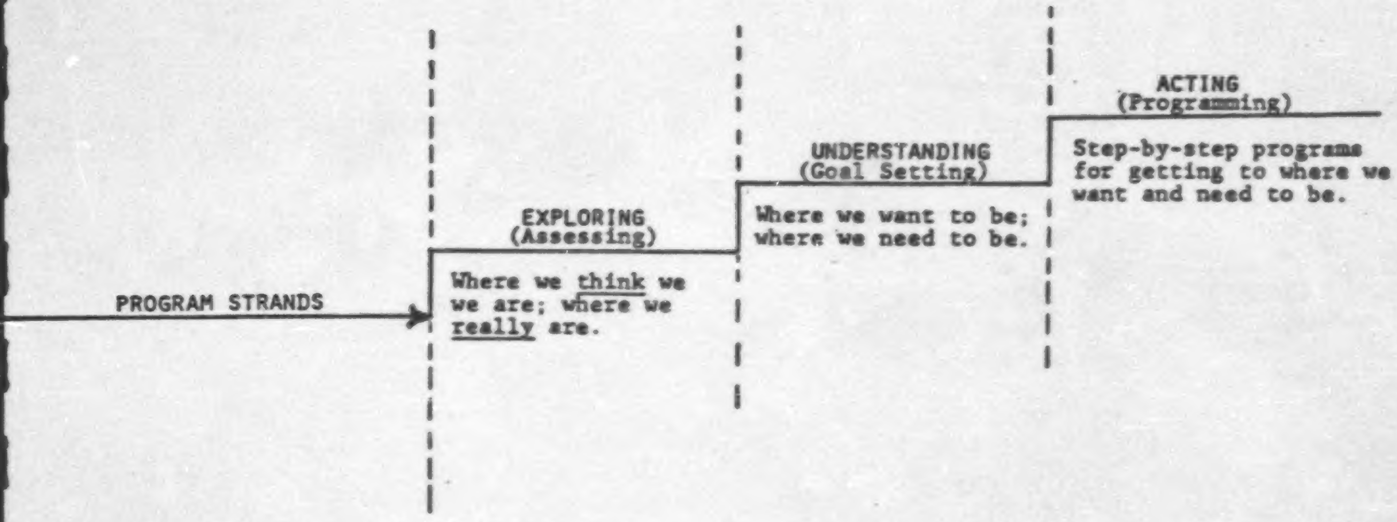
NAME	CERTIFICATION	PROGRAM
Mrs. Pat Coe		Food Service
Elmer Wolfe		Metal Working
Mrs. Denise Clark		Distributive Education
Mrs. Barbara Bricker		Health Occupations
CLINICAL SUPERVISOR		
Mrs. Sharon Wohlers		Cosmetology
OJT COORDINATORS		
Dale Ropp	Voc. and Degree	Trade & Industrial
Bernie Stankevicz	Voc. and Degree	Distributive Education
Ray Fast	Voc. and Degree	Agriculture
Charles Davidson	Degree	Inst. Media Specialist
Rene Poch	Degree	Media Assistant
SPECIAL NEEDS		
Jack Faulkner	Degree	Special Needs Coordinator
Dennis Erickson	Degree	Special Needs
Mrs. Kay Kellogg	Degree	Special Needs
Hugh Hansel	Degree	Special Needs
ADMINISTRATION		
John Dygert	MA	Director
Wade Smith	MA	Assistant Director
Bill Stankey	MA	T & I Supervisor
Ken Strong	MA	Director of Student Services

METHODS, MATERIALS, AND TECHNIQUES

Critical to the success of this comprehensive project is a means for systematically providing for people input, determining quality of input, and the utilization of that input in the preparation of action programs. This is true whether seeking management or learner outcomes recognizing that management outcomes are ultimately for the purpose of improving learning outcomes. To assist in operationalizing "good" ideas and concepts -- to develop and implement plans systematically -- a very basic human resources development, HRD, model has been applied. The model calls for three major steps. The first is exploration or determining where you are (or a program is) at; secondly, understanding where you (your program) needs to be; and thirdly, programming yourself (the program) for getting there.

Figure 14

HUMAN RESOURCES DEVELOPMENT MODEL


ACTING
(Programming)
Step-by-step programs for getting to where we want and need to be.
UNDERSTANDING
(Goal Setting)
Where we want to be; where we need to be.
EXPLORING
(Assessing)
Where we think we we are; where we really are.
PROGRAM STRANDS

The discipline and detail required to effectively utilize this approach is greater than suggested by this simple three-step description. Most assuredly, it necessitates that we learn some new skills and some of these are addressed in the description of staff training.

Several examples of the application of this basic model are offered here in the following illustrations relative to an overall program self assessment, content development and delivery by teachers as helpers, content development and delivery of career development curriculum by teachers and guidance counselors as helpers, and the generic interpersonal skills for all helpers. (See Figures 15-19.)

A second basic model used to shape the methods and procedures used in this project is Carkhuff's "Missions through Steps" scale for defining levels of specificity of content. The generation of goals, objectives and tasks from which to plan, develop, deliver and evaluate accomplishments out of anything less than a systematic model runs a very high risk of being ineffective. (See Figure 20.)

The management model for structuring this content should :

1. Give attention to the critical dimensions of people, programs, and environments and visually show the relationship of one to the other;

2. Provide for the components of delivery, support and management of proposed outcomes;

3. Allow for each member of the educational hierarchy to input into the model at their functioning level -- students through administration; and

4. Have inherent in its design a means of checking the levels of specificity and continuity at which outcomes are input.

The Carkhuff Model addresses people, programs and environments as critical dimensions of the school system and provides not only for statements of student goals, objectives, tasks, and performance steps; but also statements of intent for other people involved, proposed programs and environments required.

The principle to be applied in using the Missions through Steps model is that if you break down what it is to be accomplished in sufficient detail, then the student and/or others will be able to fulfill their missions through a succession of achievable steps.

It should be made explicit that this model is comprehensive and is applicable to both the instructional and administrative components of our school system. Indeed, it should start with the school administration. The system's mission and people, programs, and environment goals and objectives should be initially set forth by the administration with appropriate input from the community served by an ongoing needs assessment program. Given this direction, instructional and supportive services staff should develop the detailed specification of outcomes for which they are charged.

Figure 15

PROGRAM SELF ASSESSMENT

EXPLORING

Input of people who are to be affected by the program.

(1) Begin with your frame of reference
    (a) where you think you are,
    (b) where you really are:
        PHYSICALLY,
        EMOTIONALLY,
        INTELLECTUALLY.

(2) Gather inputs from others — check their frame of reference.

(3) Reassess and clarify your positions.

UNDERSTANDING

Where You Want to Be — Select your goal.

(1) Select your goal level one level from where you are

(2) Select goal area, physically, emotionally or intellectually where you're at the highest level

(3) Select sub-area in which you are functioning at high levels.

Where You Need to Be -- "Defining" or "Operationalizing" your goal.

(1) Specify categories of behavior — take from sub-area levels of functioning

(2) List specific behaviors

(3) Rank or align in order of complexity.

ACTING

Programming — Steps to Achieve a Goal

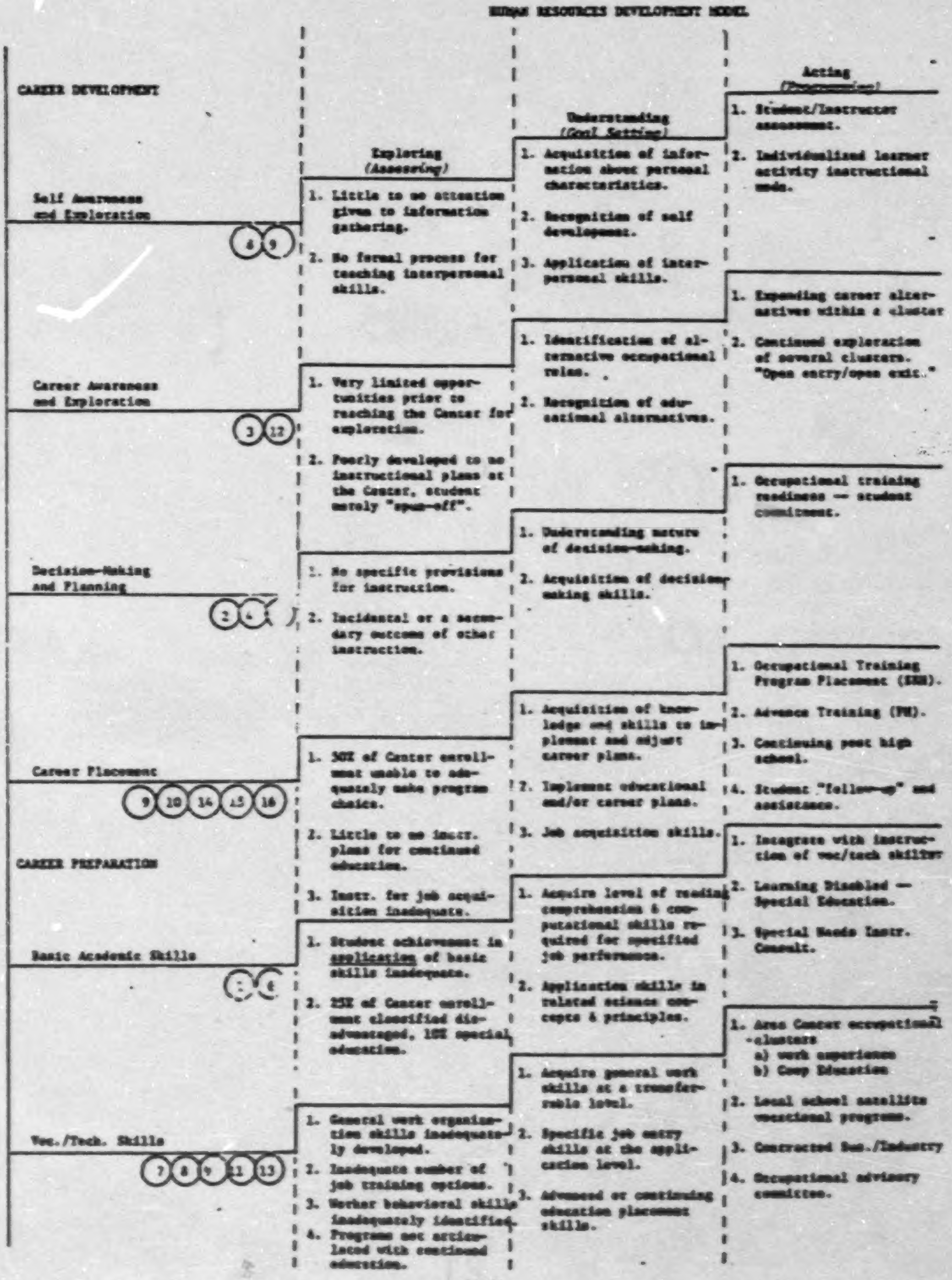
(1) Develop primary steps
    (a) Select most complex behavior
    (b) Select least complex
    (c) Build intermediary behaviors
    (d) Arrange intermediary behaviors in order of complexity

(2) Develop secondary steps
    (a) Treat each primary step as a goal
    (b) Transform these into primary steps and develop new secondary steps
    (c) Set time limits for achievement of each of the primary and secondary steps and the goal

(3) Develop check-steps, conditions that must be met "What do I need to perform this correctly?"

Figure 16

AREA VOCATIONAL CENTER INSTRUCTIONAL PROGRAM STRANDS



HUMAN RESOURCES DEVELOPMENT MODEL

	Exploring *(Assessing)*	Understanding *(Goal Setting)*	Acting *(Programming)*
CAREER DEVELOPMENT			
Self Awareness and Exploration ④ ⑨	1. Little to no attention given to information gathering. 2. No formal process for teaching interpersonal skills.	1. Acquisition of information about personal characteristics. 2. Recognition of self development. 3. Application of interpersonal skills.	1. Student/Instructor assessment. 2. Individualized learner activity instructional mode.
Career Awareness and Exploration ③ ⑫	1. Very limited opportunities prior to reaching the Center for exploration. 2. Poorly developed to no instructional plans at the Center, student merely "spun-off".	1. Identification of alternative occupational roles. 2. Recognition of educational alternatives.	1. Expanding career alternatives within a cluster 2. Continued exploration of several clusters. "Open entry/open exit."
Decision-Making and Planning ② ④ [illegible]	1. No specific provisions for instruction. 2. Incidental or a secondary outcome of other instruction.	1. Understanding nature of decision-making. 2. Acquisition of decision-making skills.	1. Occupational training readiness — student commitment.
Career Placement ⑨ ⑩ ⑭ ⑮ ⑯	1. 30% of Center enrollment unable to adequately make program choice. 2. Little to no instr. plans for continued education. 3. Instr. for job acquisition inadequate.	1. Acquisition of knowledge and skills to implement and adjust career plans. 2. Implement educational and/or career plans. 3. Job acquisition skills.	1. Occupational Training Program Placement (SRM). 2. Advance Training (PM). 3. Continuing post high school. 4. Student "follow-up" and assistance.
CAREER PREPARATION			
Basic Academic Skills [illegible] ⑥	1. Student achievement in application of basic skills inadequate. 2. 25% of Center enrollment classified disadvantaged, 10% special education.	1. Acquire level of reading comprehension & computational skills required for specified job performance. 2. Application skills in related science concepts & principles.	1. Integrate with instruction of voc/tech skills 2. Learning Disabled — Special Education. 3. Special Needs Instr. Consult.
Voc./Tech. Skills ⑦ ⑧ ⑨ ⑪ ⑬	1. General work organization skills inadequately developed. 2. Inadequate number of job training options. 3. Worker behavioral skills inadequately identified. 4. Programs not articulated with continued education.	1. Acquire general work skills at a transferable level. 2. Specific job entry skills at the application level. 3. Advanced or continuing education placement skills.	1. Area Center occupational clusters a) work experience b) Coop Education 2. Local school satellite vocational programs. 3. Contracted Bus./Industry 4. Occupational advisory committee.

Figure 17

SYSTEMATIC CONTENT DEVELOPMENT AND DELIVERY

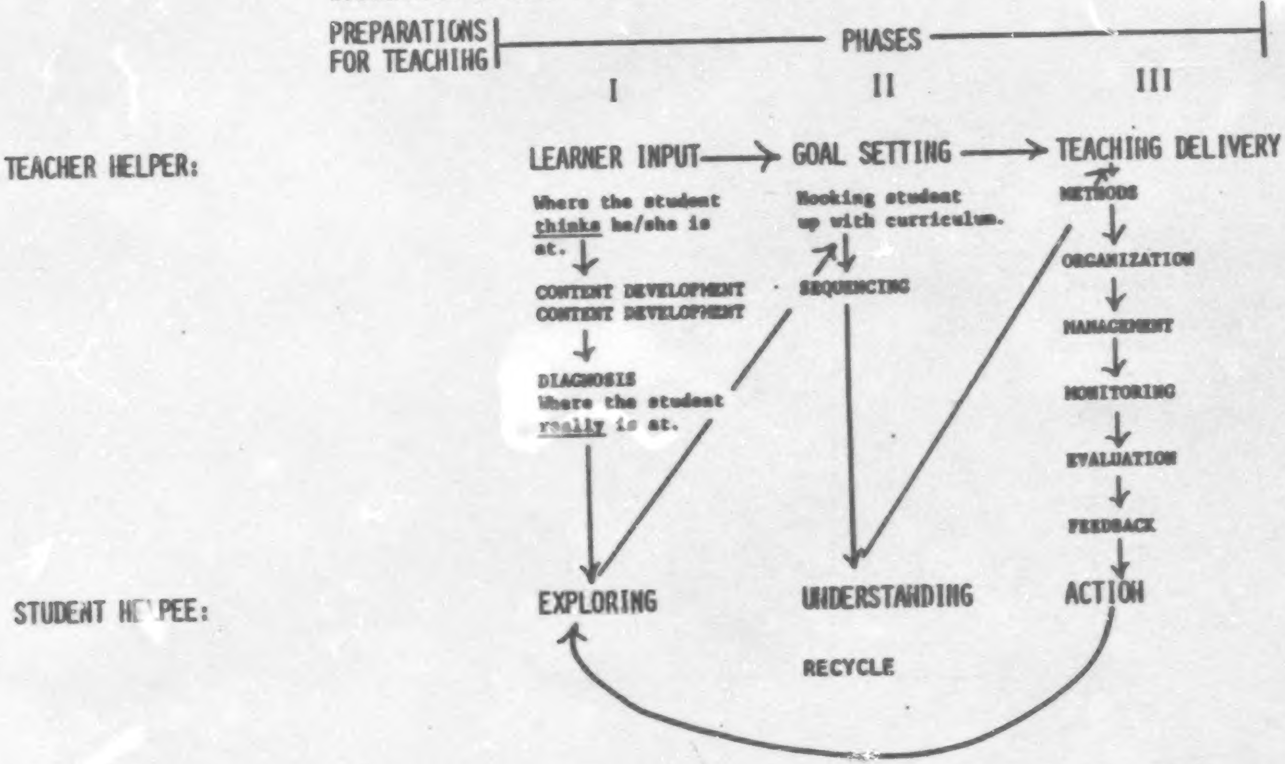

PREPARATIONS FOR TEACHING
PHASES
I
II
III
TEACHER HELPER:
LEARNER INPUT
GOAL SETTING
TEACHING DELIVERY
Where the student thinks he/she is at.
CONTENT DEVELOPMENT
CONTENT DEVELOPMENT
DIAGNOSIS
Where the student really is at.
Hooking student up with curriculum.
SEQUENCING
METHODS
ORGANIZATION
MANAGEMENT
MONITORING
EVALUATION
FEEDBACK
STUDENT HELPEE:
EXPLORING
UNDERSTANDING
ACTION
RECYCLE

Figure 18

SYSTEMATIC CONTENT DEVELOPMENT AND DELIVERY FOR CAREER DEVELOPMENT

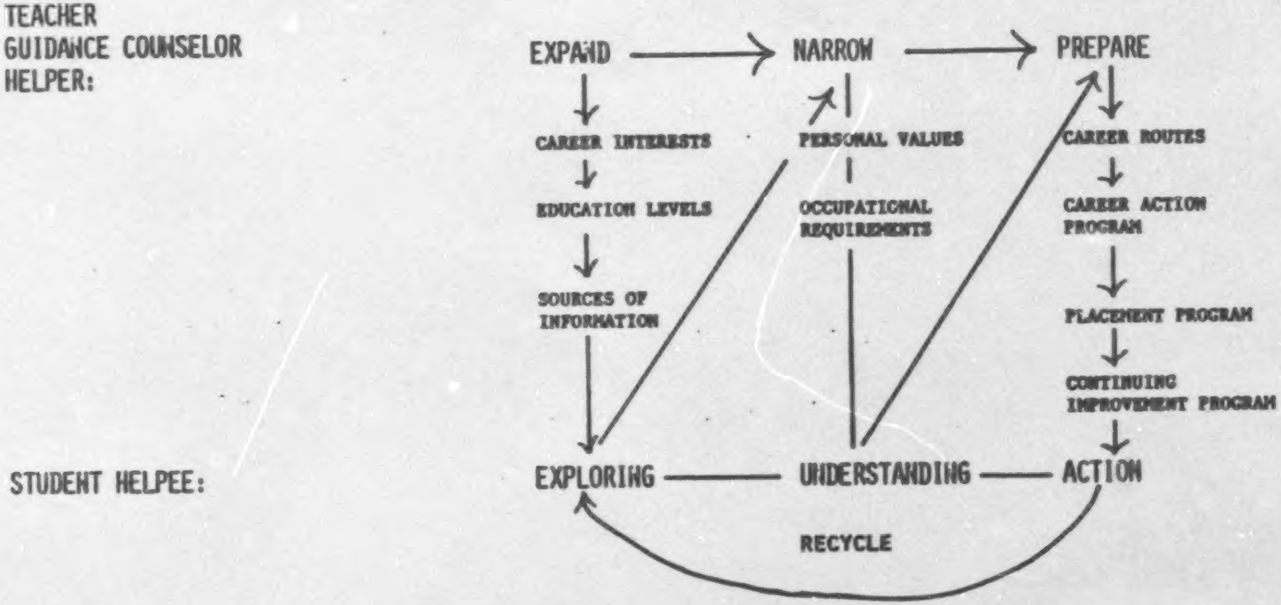

TEACHER
GUIDANCE COUNSELOR
HELPER:
EXPAND
NARROW
PREPARE
CAREER INTERESTS
EDUCATION LEVELS
SOURCES OF INFORMATION
PERSONAL VALUES
OCCUPATIONAL REQUIREMENTS
CAREER ROUTES
CAREER ACTION PROGRAM
PLACEMENT PROGRAM
CONTINUING IMPROVEMENT PROGRAM
STUDENT HELPEE:
EXPLORING
UNDERSTANDING
ACTION
RECYCLE

Figure 19

HELPER BEHAVIORS IN PHASES OF HELPING (CARKHUFF)

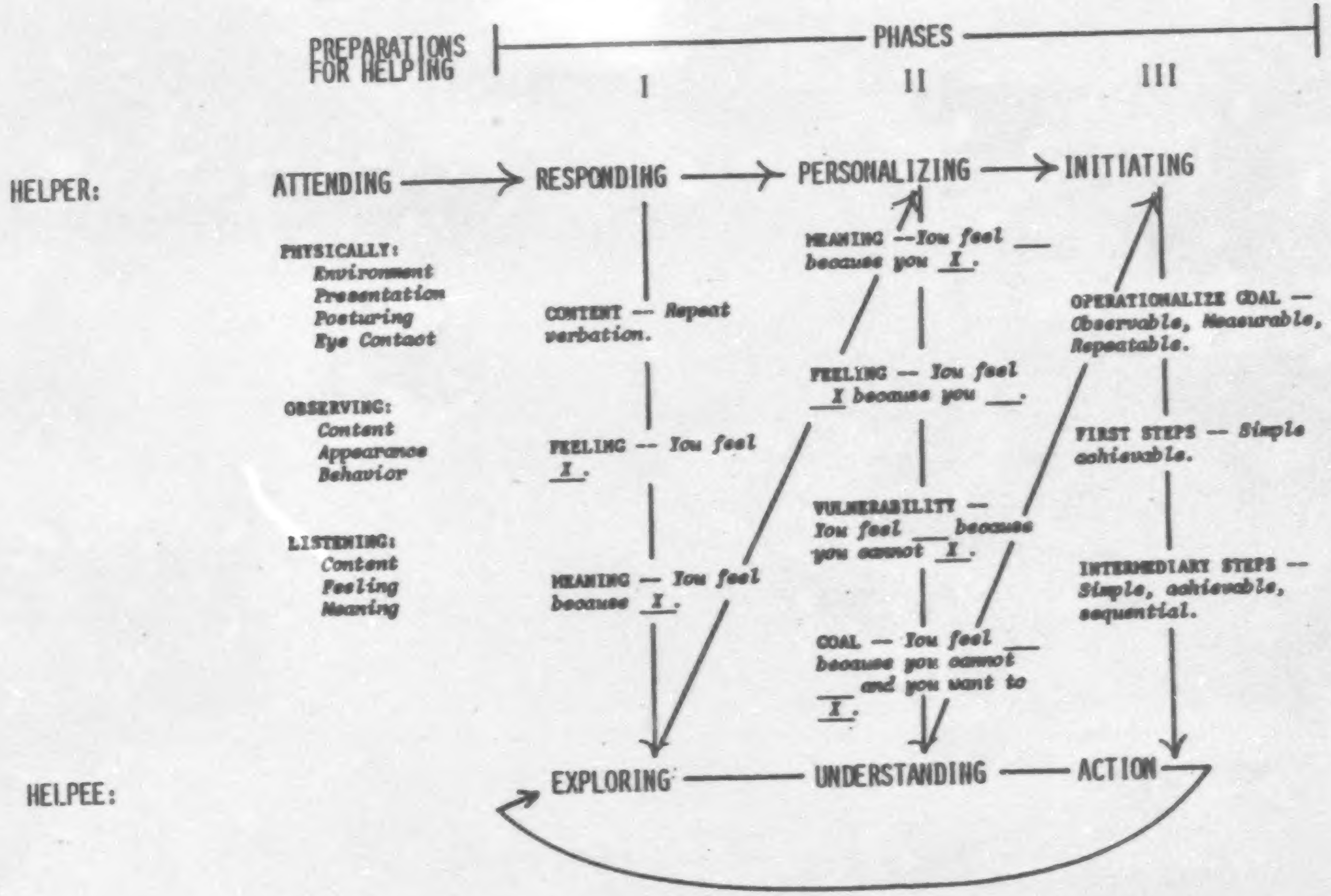
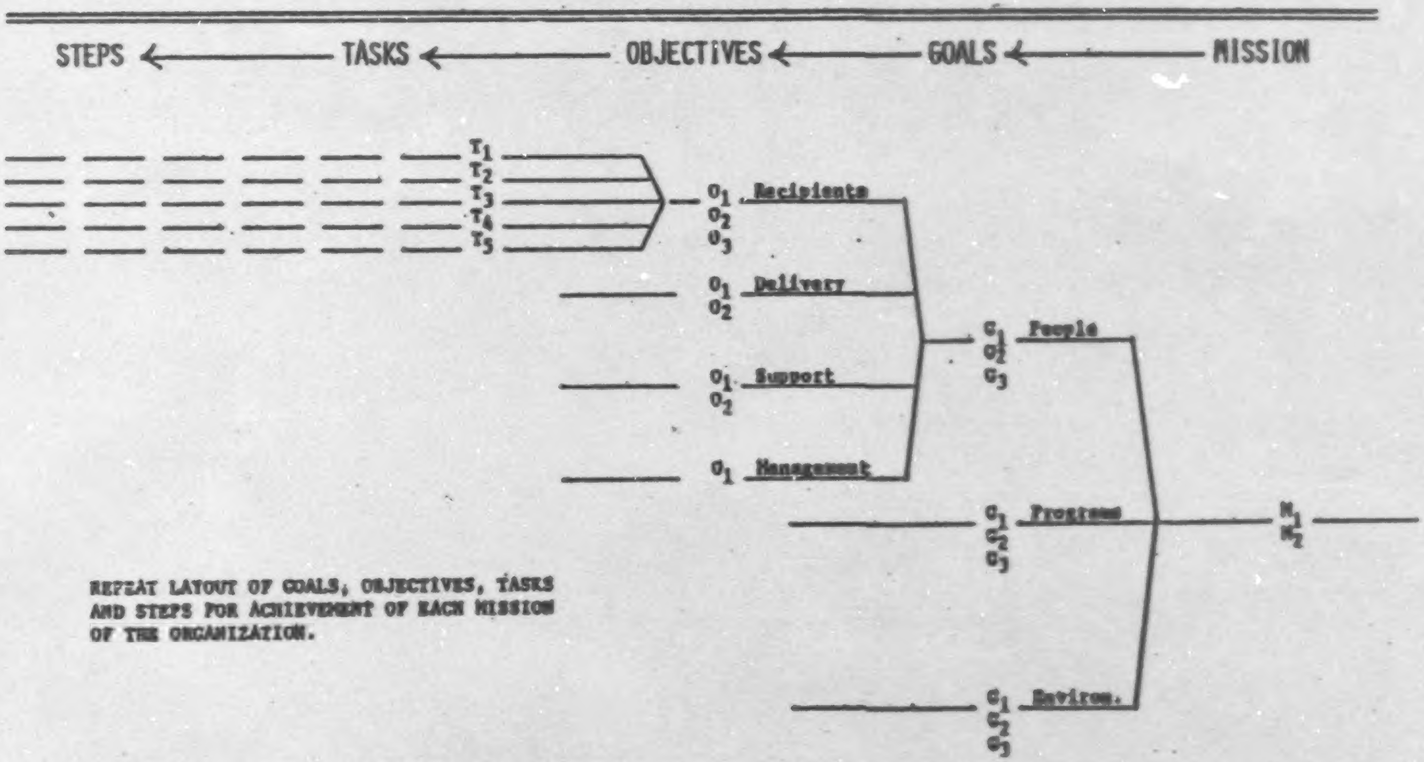

PREPARATIONS FOR HELPING
PHASES
I
II
III
HELPER:
ATTENDING
RESPONDING
PERSONALIZING
INITIATING
PHYSICALLY:
Environment
Presentation
Posturing
Eye Contact
OBSERVING:
Content
Appearance
Behavior
LISTENING:
Content
Feeling
Meaning
CONTENT — Repeat verbation.
FEELING — You feel X.
MEANING — You feel because X.
MEANING —You feel ___ because you X.
FEELING — You feel X because you ___.
VULNERABILITY — You feel ___ because you cannot X.
GOAL — You feel ___ because you cannot ___ and you want to X.
OPERATIONALIZE GOAL — Observable, Measurable, Repeatable.
FIRST STEPS — Simple achievable.
INTERMEDIARY STEPS — Simple, achievable, sequential.
HELPEE:
EXPLORING
UNDERSTANDING
ACTION

Figure 20

MANAGEMENT MODEL -- PEOPLE, PROGRAMS AND ENVIRONMENTS DEFINING LEVELS OF SPECIFICITY
CARKHUFF


STEPS
TASKS
OBJECTIVES
GOALS
MISSION
T_1
T_2
T_3
T_4
T_5
O_1 Recipients
O_2
O_3
O_1 Delivery
O_2
O_1 Support
O_2
O_1 Management
G_1 People
G_2
G_3
G_1 Programs
G_2
G_3
G_1 Environ.
G_2
G_3
M_1
M_2

REPEAT LAYOUT OF GOALS, OBJECTIVES, TASKS AND STEPS FOR ACHIEVEMENT OF EACH MISSION OF THE ORGANIZATION.

A further method employed beyond the Mission through Steps scale for organizing the teaching content is the Facts through Programs scale. This scale is graphically presented in Figure 21. It literally identifies the levels of functionality of knowledge.

In regard to the delivery of content, a Show-Tell-Do Method presented in Figure 22 is being proposed as an instructional method. A means employed to organize the teaching delivery is the ROPES Method or Review, Overview, Presentation, Exercise and Summary. A content development and delivery plan sheet is offered as Figure 23 and a lesson plan or instructional module development "check list" to summarize the methods and procedures used for developing instructional content and delivery. These methods and procedures represent the more detailed efforts of developing instruction.

Other curriculum development efforts have to do with the larger pieces of curriculum development represented by identifying the missions, goal areas, and the job training and career development tasks to be attended to as well as the organization of occupationally related job area or clusters to be used on a basic delivery structure.

Curricula to accomplish the requirement of the Cluster Project at a minimum requires attention to the following areas of student outcome skills.

CAREER DEVELOPMENT
- Self Awareness and Exploration Skills
- Career Awareness and Exploration Skills
- Career Decision-Making and Planning Skills
- Placement Skills

CAREER JOB ENTRY PREPARATION
- Voc./Tech. and Related Basic Academic Skills

Basic to both the career preparation and career development skills is content which clearly identifies the behaviors required in the work setting. This information is input into the self and career awareness components of the curriculum. Decision-making skills and placement skills may be regarded as basic academic skills which become critical as a part of a process of career planning and implementation. An overview of the organization of these components in relation to Vocational and Career Education and the system of Education generally is offered in Figure 25.

The organizational pattern for delivery of career development and preparation curricula may be one of several modes:

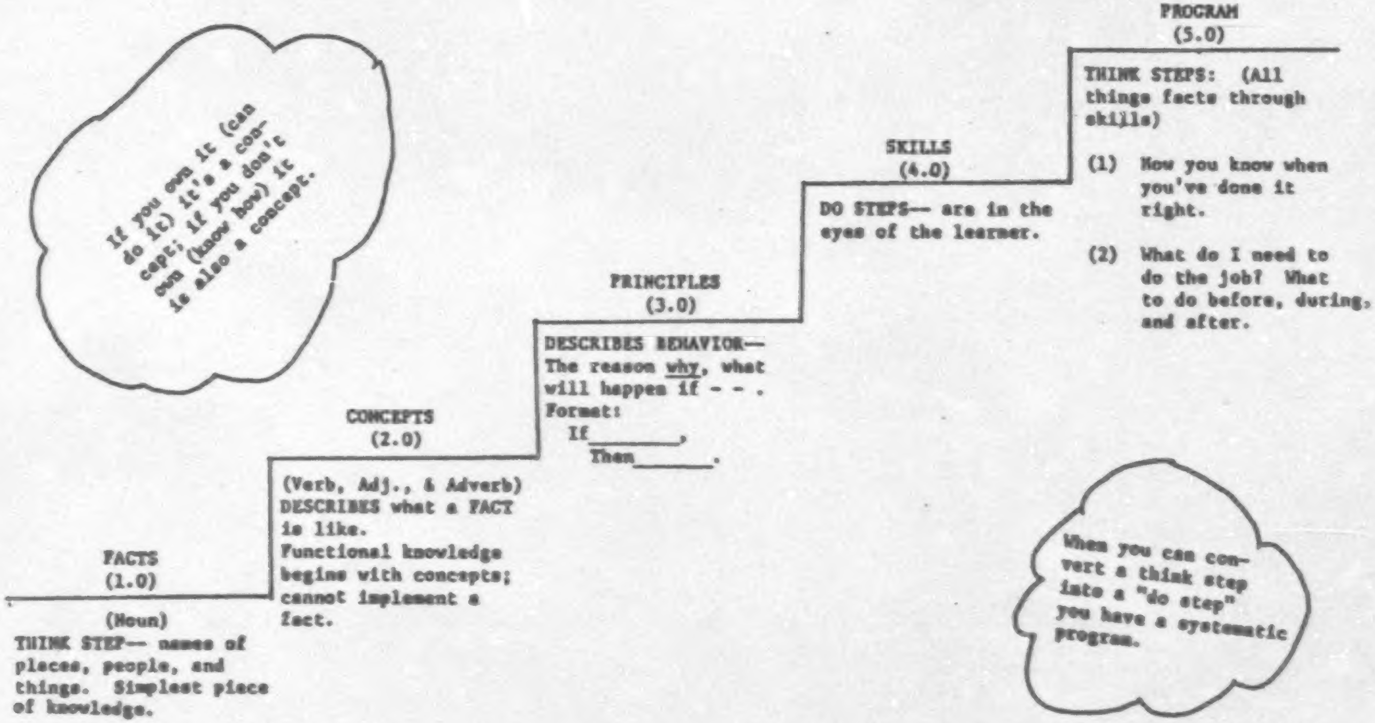
1. Single course offerings

2. Infused career development content with a single vocational course offering

3. Infused career development content with a cluster of occupational course offerings.

Figure 21

KNOWLEDGE--LEVELS OF USEFULNESS, CURRICULUM CONTENT



If you own it (can do it) it's a concept; if you don't own (know how) it is also a concept.

FACTS
(1.0)

(Noun)
THINK STEP-- names of places, people, and things. Simplest piece of knowledge.

CONCEPTS
(2.0)

(Verb, Adj., & Adverb)
DESCRIBES what a FACT is like.
Functional knowledge begins with concepts; cannot implement a fact.

PRINCIPLES
(3.0)

DESCRIBES BEHAVIOR-- The reason why, what will happen if - - .
Format:
If________,
Then_______.

SKILLS
(4.0)

DO STEPS-- are in the eyes of the learner.

PROGRAM
(5.0)

THINK STEPS: (All things facts through skills)

(1) How you know when you've done it right.

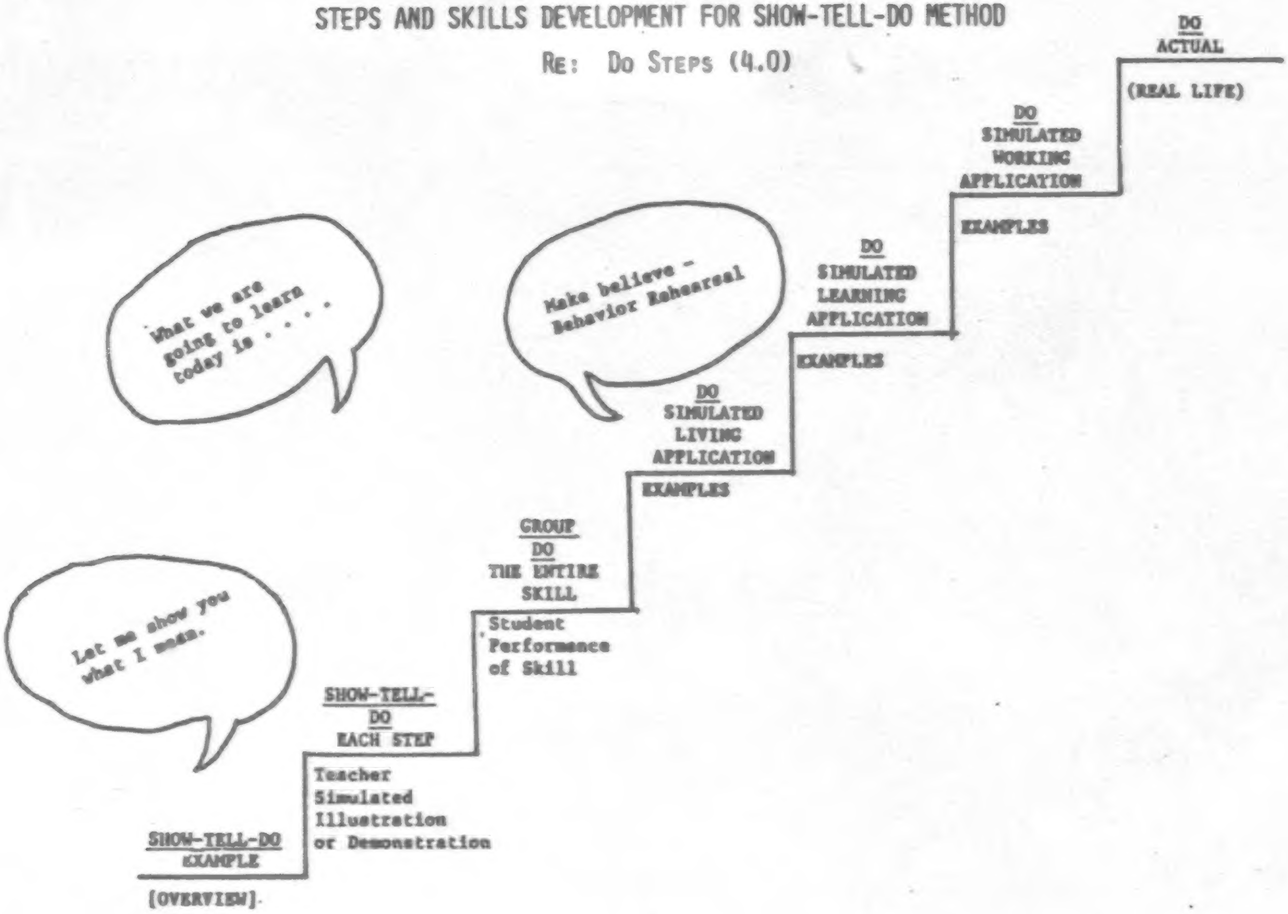
(2) What do I need to do the job? What to do before, during, and after.

When you can convert a think step into a "do step" you have a systematic program.

Figure 22

STEPS AND SKILLS DEVELOPMENT FOR SHOW-TELL-DO METHOD

Re: Do Steps (4.0)



What we are going to learn today is . . . .
Make believe - Behavior Rehearsal
Let me show you what I mean.
SHOW-TELL-DO EXAMPLE
[OVERVIEW]
SHOW-TELL-DO EACH STEP
Teacher Simulated Illustration or Demonstration
GROUP DO THE ENTIRE SKILL
Student Performance of Skill
DO SIMULATED LIVING APPLICATION
EXAMPLES
DO SIMULATED LEARNING APPLICATION
EXAMPLES
DO SIMULATED WORKING APPLICATION
EXAMPLES
DO ACTUAL
(REAL LIFE)

Figure 23

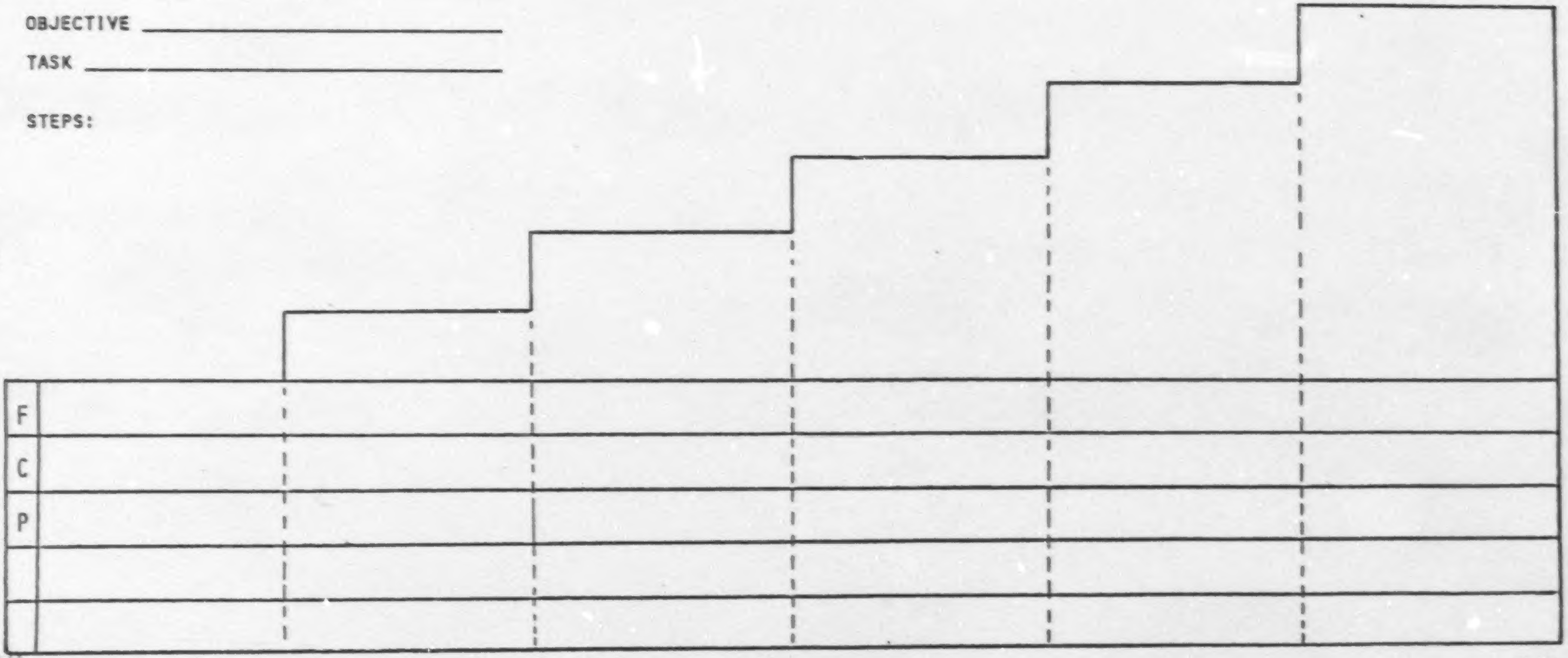
CONTENT PLAN

GOAL ________________________

OBJECTIVE ____________________

TASK ________________________

STEPS:



CONTENT DELIVERY PLAN
- SHOW - TELL - DO
- REVIEW - OVERVIEW - PRESENT - EXERCISE - SUMMARY

NOTE: THIS SECTION IS FOR THE PURPOSE OF PLANNING THE DELIVERY FOR EACH OF THE CONTENT STEPS OUTLINED ABOVE. USE SEPARATE WORKSHEET DESIGNED TO ALIGN WITH THE FORMAT ABOVE.

Figure 24

CHECKLIST FOR MODULE DEVELOPMENT

Does this module have:

☐ 1. A learning goal?

☐ 2. A learning objective?

☐ 3. A learning task(s) identified?

☐ 4. The "do" steps for skill acquisition spelled out?

☐ 5. "Do" steps that are appropriate to the skill acquisition spelled out?

☐ 6. The fact(s) for each "do" step identified?

☐ 7. The concept(s) for each "do" step identified?

☐ 8. The principle or reason for learning this skill?

☐ 9. The specifics to be learned clearly identified?

☐ 10. The whole program identified with the "thing" steps included?

11. A review that includes:

☐ - the "do" steps?

☐ - the principle?

☐ - the "think" steps?

12. An overview that represents:

☐ - where you have been?

☐ - where you are?

☐ - where you are going?

13. A presentation that includes:

☐ - a show and tell of the whole skill or result of the skill?

☐ - show, tell, and do technique for each "do" step?

14. A skill exercise or practice technique that allows the student to:

☐ - repeat the "do" steps and whole skill?

☐ - apply the "do" steps and whole skill to a variety of living, learning, and working situations?

☐ - transfer the learning through either actual use at school with supervision or actual use away from school with monitoring?

15. A summary that wraps up the learning for the learner and provides some understanding of this learning process by:

☐ - summarizing the "do" steps?

☐ - summarizing the principle of this new skill?

☐ - summarizing the "think" step for this skill?

NOTE: Be sure you are teaching a "doing" skill. Give the student the facts or "knowing" steps only when they are needed to complete a "doing" step.

Regardless of the delivery technique, content is generated basically by the same procedures. Its combination into lesson plans and/or instructional modules and the sequencing may be altered depending upon the delivery plan.

The organization of cluster content and delivery is graphically represented in Figure 26. A specific example of content organization relative to what's common and what's unique is offered in Figure 27 for illustration of a Business and Office Cluster.

The procedures demonstrating the identification of CAVC programs with the USOE Clustering Plan and the related learning modules is offered in Appendix E.

The methods and materials described here represent those portions of educational technology selected to upgrade curriculum content and delivery. These selections were based upon a survey evaluation of CAVC programs. A description of this survey is offered as Appendix F.

During this developmental project year, the basic strategy has been to improve the skills of staff and to make application of these improved skills as evidenced by useable curriculum products for implementation the second and third years. The primary techniques have been blocks of training time for selected staff arranged in groups scheduled largely during the second semester and summer.

Table 4

SUMMARY OF TRAINING

Inservice groups and training included:

Voc./Tech. Curriculum Content Development and Delivery skills	13 Participants 62 Hours of Training
Career Development and Job Placement Curriculum Content Development and Delivery Skills	8 Participants 62 Hours of Training
Skills of Teaching, Interpersonal Delivery Skills	57 Participants
Group I	35 Hours of Training
Group II	25 Hours of Training

Other training groups scheduled for the summer include:

Guidance Counselors of Local Schools in Career Development Skills	15-18 Participants 6 Hrs./Day, 5 Days
Area Center Instructors in Voc./Tech. Curriculum Content and Delivery Skills	12-15 Participants 7 Hrs./Day, 5 Days
Area Center Administrative and Support Services Staff in Cluster Delivery, Support and Management Skills	12-15 Participants 7 Hrs./Day, 5 Days

Figure 25

CALHOUN AREA VOCATIONAL CENTER

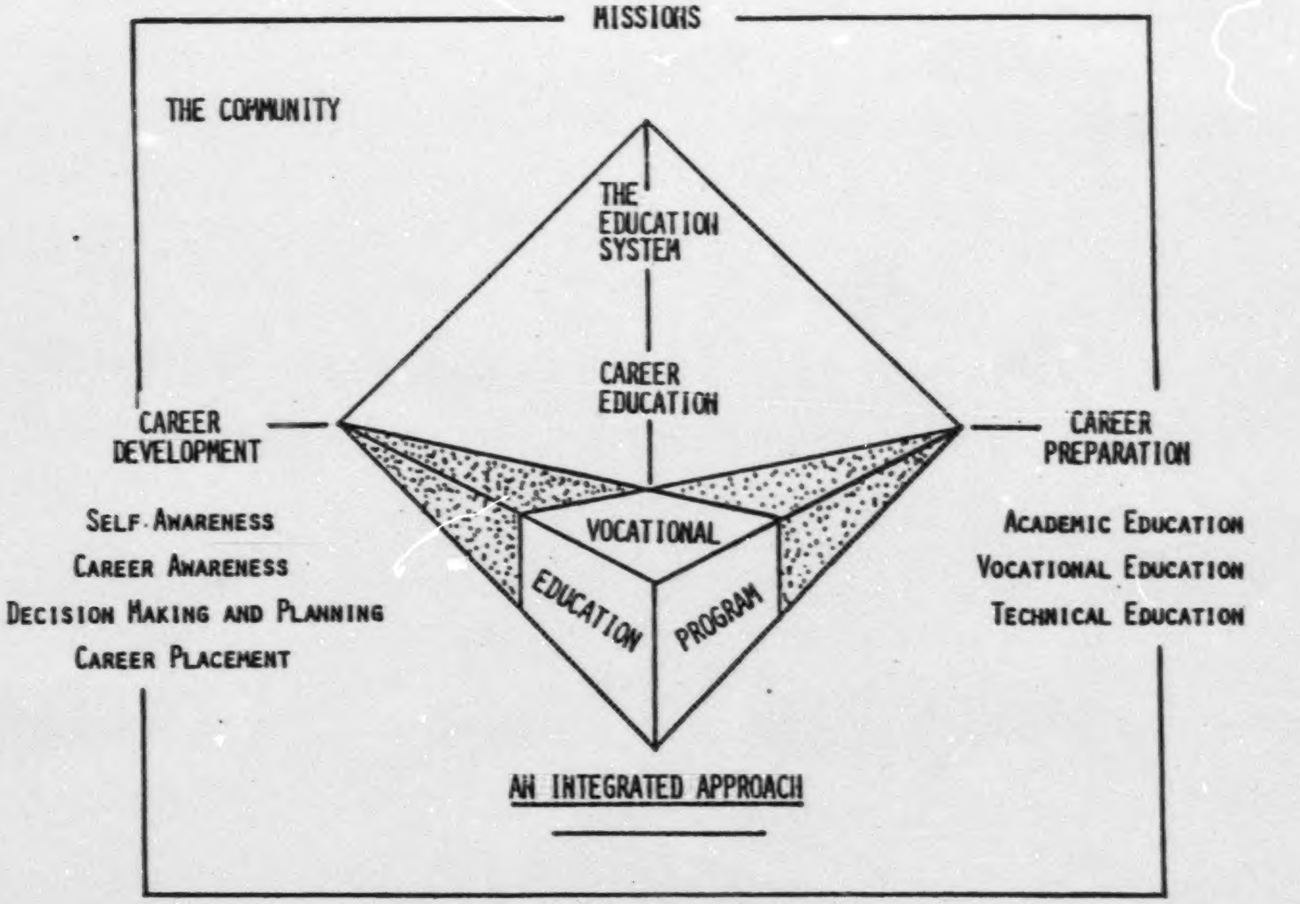

MISSIONS
THE COMMUNITY
THE EDUCATION SYSTEM
CAREER EDUCATION
CAREER DEVELOPMENT
SELF AWARENESS
CAREER AWARENESS
DECISION MAKING AND PLANNING
CAREER PLACEMENT
VOCATIONAL
EDUCATION
PROGRAM
CAREER PREPARATION
ACADEMIC EDUCATION
VOCATIONAL EDUCATION
TECHNICAL EDUCATION
AN INTEGRATED APPROACH

Figure 26

MAJOR COMPONENTS OF AN EDUCATIONAL DELIVERY SYSTEM

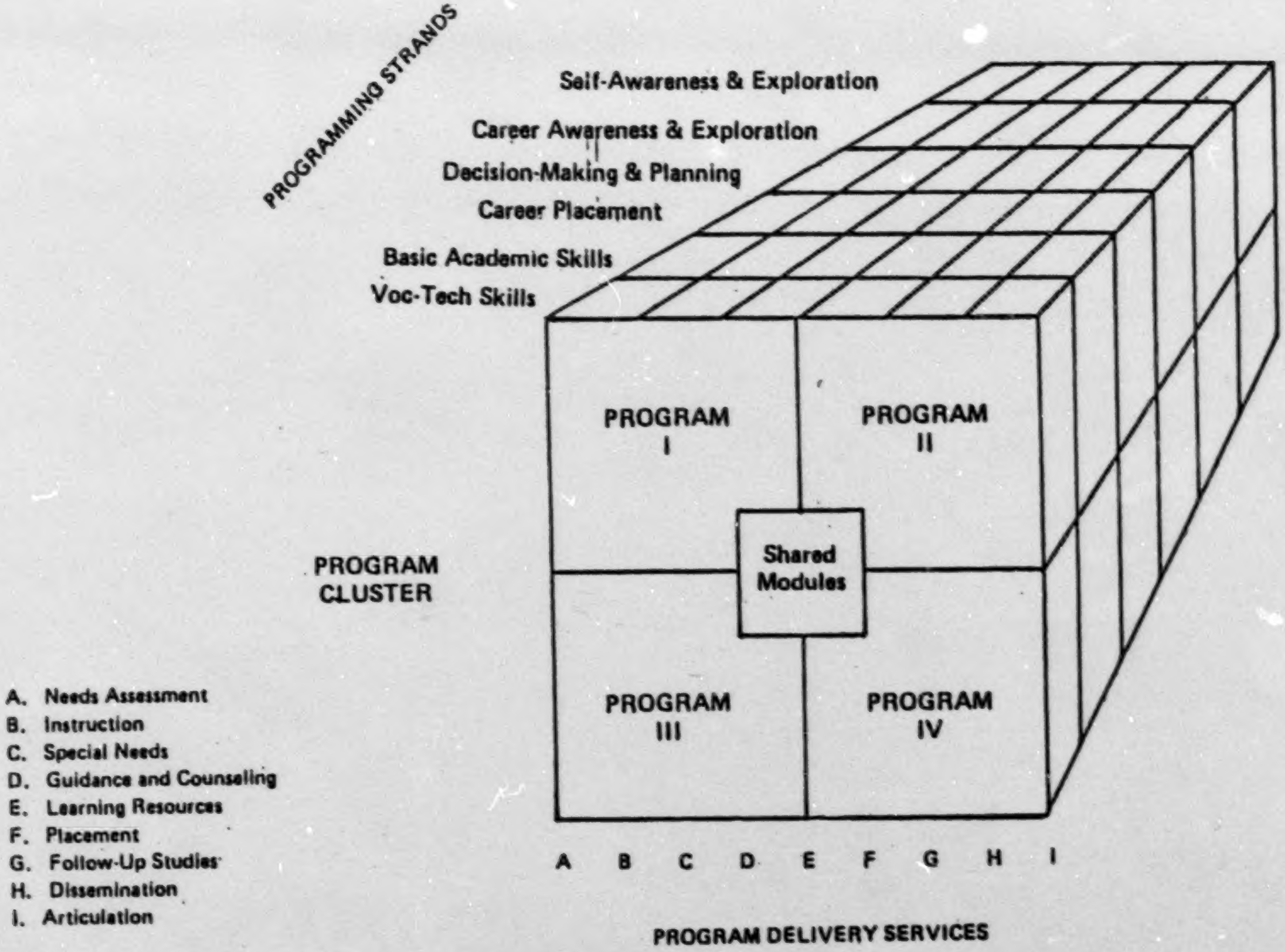
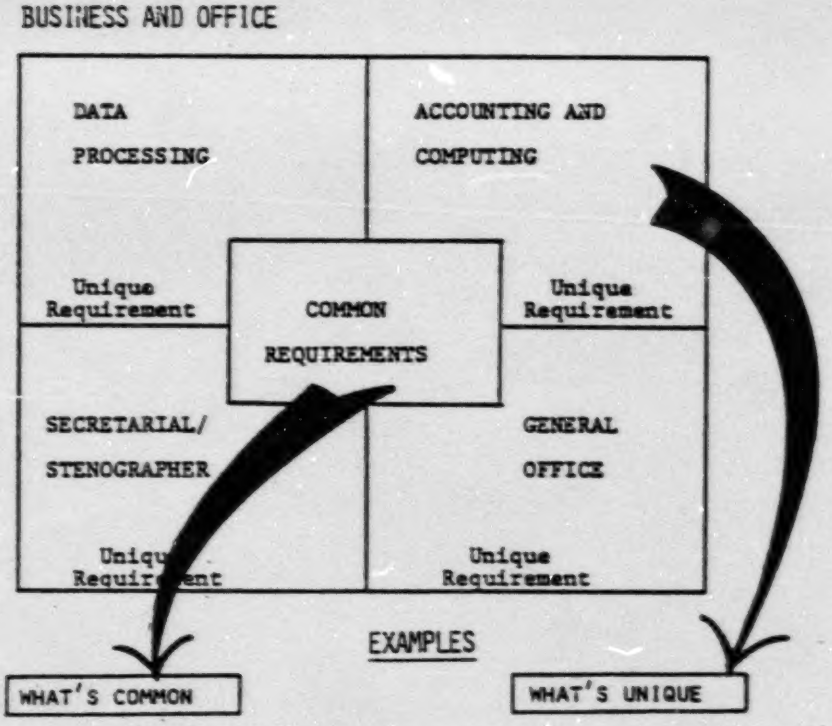

PROGRAMMING STRANDS
Self-Awareness & Exploration
Career Awareness & Exploration
Decision-Making & Planning
Career Placement
Basic Academic Skills
Voc-Tech Skills
PROGRAM I
PROGRAM II
Shared Modules
PROGRAM III
PROGRAM IV
PROGRAM CLUSTER
A. Needs Assessment
B. Instruction
C. Special Needs
D. Guidance and Counseling
E. Learning Resources
F. Placement
G. Follow-Up Studies
H. Dissemination
I. Articulation
A B C D E F G H I
PROGRAM DELIVERY SERVICES

Figure 27


BUSINESS AND OFFICE
DATA PROCESSING
Unique Requirement
ACCOUNTING AND COMPUTING
Unique Requirement
COMMON REQUIREMENTS
SECRETARIAL/ STENOGRAPHER
Unique Requirement
GENERAL OFFICE
Unique Requirement
EXAMPLES
WHAT'S COMMON
WHAT'S UNIQUE

CAREER DEVELOPMENT
1. Self Awareness -- Interpersonal Skills
2. Career Awareness -- Closely Related Work Areas
3. Decision-Making and Planning Skills
4. Placement Skills -- Job Acquisition, Job Openings, and Continuing Education

WORK ORGANIZATION SKILLS

WORK ATTITUDES AND VALUES

VOC/TECH RELATED ACADEMIC SKILLS

SELECTED VOC/TECH SKILLS
1. Adding Machine Operation
2. Calculator Operation
3. Copy Machine
4. Typewriter

SELECTED VOC/TECH SKILLS
1. Preparing a Balance Sheet
2. Preparing a Cash Proof
3. Compute and Record Accrued Expenses.

The first semester was devoted to project staff consultations, work in laying a sound management base for the project, and conducting survey evaluations of programs.

The training follow-up memorandums in Appendix G describe the nature of the training and its application to program development in effecting a basis for clustered curricula.

Methods, materials, instruments and techniques used in the gathering of base rate data relative to student outcome measurement is handled as a part of the evaluation section of this report.

RESULTS AND ACCOMPLISHMENTS

A listing of accomplishments keyed to the Cluster Project objectives has been logged for each quarter of the project. These accomplishments are viewed as work products or sub-products which collectively contribute to the achievement of the project objectives. Any one accomplishment may relate to more than one objective. They are keyed, however, to that objective having the most direct relationship.

The compilation of accomplishments are offered in Table 5.

Table 5

ACCOMPLISHMENTS

GOAL #1 -- To implement and as a consequence demonstrate the application of the concept of "career clusters" as an organizational technique to facilitate the delivery of career development and occupational preparatory instruction at the high school level.

Objectives Cited	Accomplishments
1.1 A broadened curriculum offering which is more representative of the jobs existing in the labor force.	A. An initial listing of placement area potential employers has been prepared by occupational training program area and cluster.
	B. Projected local employment demand projections have been devised by occupational training program area. Also, Michigan and U.S. labor market projections have been surveyed by occupational training program area.
	C. Contractional training at business and industry sites has been provided for six (6) students in occupations in low market demand areas and for which cost effective programming cannot be provided at the Center.
	D. CAVC and BACC program career ladders or job hierarchies have been reviewed for additions and/or deletions. Revisions are reflected in updated job training hierarchies for each program area.
1.2 Job preparatory programs which enable the student to equip himself or herself for several job entry options.	A. Clustering plan has been selected.
	B. All existing program areas have been designated as part of a USOE/CAVC modified cluster.
	C. Job task listing and/or performance goal statements have been compiled for six (6) clusters.

	D. Staff has been trained relative to curriculum content and delivery to provide explicitly for work applications of the learning skills wherever possible.
	E. A clustering format has been designed to identify those job tasks which are common to the specified work related areas and those which are unique to jobs within the work related areas.
	F. A clustering format has been designed which integrates within the occupational cluster an ongoing career development delivery system to enable student to align his/her ongoing career development planning with training for specified job tasks.
1.3 A curriculum in which career options and hierarchies are more visible and which promote both the lateral and upward mobility of graduates whether they choose entry into a job or to pursue further education.	A. CAVC job training and occupational hierarchies have been graphically identified for six (6) clusters.
	B. See 3.6.
	C. Local school and Area Center instructional staff conferences and group program orientation sessions have been accomplished as one means of dissemination of job training information to assist local schools in counseling students.
	D. Inservice training has been provided based upon a pilot application of the development and classroom use of job family hierarchies.
	E. See 1.1, Item D.
1.4 A broadened base of career information formulated to facilitate the comparison of worker traits and individual interests and abilities as input into a student applied career planning and decision-making model.	A. Business and industry display of career information relative to the CAVC clusters has been established as part of the Center's LRC. Approximately ninety-two (92) different business-industry information requests have been processed to date.

B. Local area career information relative to job characteristics and salary information has been gathered by placement services staff and made available to instructional program managers for use with students.

C. Selected career development staff have developed curriculum designed to expand the student information gathering skills.

1.5 An improved ability to communicate vocational education and training outcomes to the employing community and the related units of business, industry, the professions and government.

A. The following programs and identified clusters have established learner performance outcomes in behavioral terms:

- HEALTH
    - Nurse Aide
    - Male Attendant
    - Home Health Aide
- BUSINESS AND OFFICE
    - Accounting & Computing
    - Data Processing
    - General Clerical
    - Steno-Secretarial
- COMMUNICATIONS MEDIA
    - Commercial Art
    - Graphic Reproduction
    - Drafting/Illustrating
- CONSTRUCTION
    - Carpentry
    - Floor Covering
    - Electricity
    - Heating & Plumbing
- CONSUMER AND HOMEMAKING
    - Institution-Home Management
    - Food Management - Home and Comm.
    - Child Care & Guidance
- ELECTRO-MECHANICAL
    - Electronics
    - Electricity
    - Air Conditioning & Refrigeration
    - Appliance Repair

B. Job referral system has been established which communicates to employers the job skill performances achieved by the student.

C. Specific procedures for developing and implementing the use of occupational advisory committees for programs within each cluster has been initiated.

	D. First drafts of instruments to be used as a part of a needs assessment system to be applied to each program area in the Center have been accomplished in cooperation with the Michigan State University Management Information Project.
	E. A number in excess of 500 direct mail letters and CAVC brochures have gone to area businesses and industries descriptive of programming and student training outcomes.
	F. Learning modules have been developed to train students in reporting via a personal resume their educational and work experience accomplishments as part of their job getting skills.
1.6 A curriculum which affords greater visibility of job preparatory options for mentally and physically impaired and otherwise disadvantaged individuals.	A. A system for modifying delivery systems to enable mentally and physically impaired and disadvantaged students to benefit from regular vocational programs has been implemented (Individual Student Prescriptions).
1.7 A curriculum structure which enables the individual to pursue his or her interests in a variety rather than one occupational area.	A. Four (4) of the six (6) clusters identified in 1.5 have approximately half of their instructional delivery system "modularized". B. Each of the six (6) clusters have identified specified multiple job training options.

GOAL #2 — To effect and implement refinements in existing delivery systems and demonstrate a comprehensive vocational education proficiency model; inclusive of an individualized learner process approach, as an initial step in translating local district, intermediate district, state, and national goals for occupational education (relative to its contribution towards optimizing employment) into reality.

Objectives Cited	Accomplishments
2.1 An effective system for accommodating the changing attributes of the individuals entering the occupational training system.	A. A cluster curriculum development and individualized learner process models have been selected and described to the instructional staff.

B. Individual student learner commitment system has been initiated in all program areas.

C. A career development curriculum content development model has been selected, student skills content identified, an initial group of instructors and support services staff trained, and training related program development assignments made.

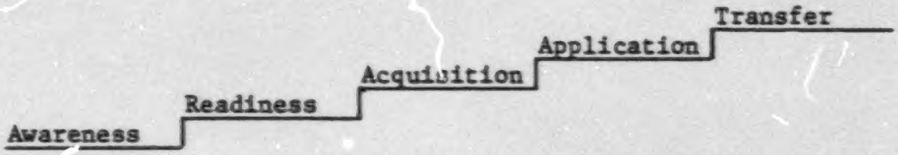
D. The written cluster curriculum development model relative to curriculum content and occupational cluster organization has been expanded and clarified with regard to the "particular festures" of the CAVC clusters.

E. A curriculum organization management model relative to specifying the levels of people, programs, and environmental requirements for accomplishing the missions of the Center has been selected. Selected staff have been trained in its application.

F. A second system or mode for organizing and defining curriculum content has been selected and described as "Facts through Programs Scale". It identifies the level of usefulness of the content on a scale made up of fact (1.0), concept (2.0), principle (3.0), skills (4.0), and programs (5.0).

G. An improved mode or method identified as "Show-Tell-Do" for approaching the delivery of instructional content at the skills (4.0) level has been selected and an initial group of instructional and support services staff trained in its application.

H. Other delivery methods selected and in which initial selected groups of staff have been trained include a scheme for classifying for curriculum content in terms of:



I. Staff has been trained to take curriculum content and break it down in accordance with a scale of Goals through Steps. The steps are defined as procedural skills that can be accomplished by the student with his/her current level of achievement or existing attributes.

J. Staff has been trained in interpersonal skills to attending and responding levels enabling the collection of more reliable input from students relative to where they think they are at.

K. Staff has been trained in the application of a simple diagnostic matrix to gather discrimination and action data regarding where the student is really at.

2.2 Curriculum clusters based on occupational information and societal demands as modified by the student attributes.

A. Local placement area employer listings and classifications have been completed.

B. State Department of Labor and Department of Education manpower priorities have been identified.

C. Job entry training appropriate for youth has been identified by programs and designated clusters and correlated with Michigan VIEW.

	D. A pilot management information feedback system has been devised and is currently being tested for reporting individual student status relative to training commitment and delivery system (treatments) being applied.
	E. A program for prescribing individual student prescriptions for special needs students has been piloted. Forty-eight (48) prescriptions have been processed this quarter.
2.3 Curriculums reflect the occupational demand structure -- new curriculums developed, outmoded ones dropped.	A. Eliminated small engines program by transferring training components to other power mechanics programs within a transportation cluster.
	B. Added Central Supply and Geriatric Aide to the job training program in the Health Cluster.
	C. CAVC student enrollment quotas were reassessed and established for each program area and cluster for the 1976-77 school year.
2.4 Curriculum clusters reflect continuity from early and upper secondary to post secondary occupational education institutions.	A. Career development and preparation instructional strands, concepts, and learner reference goals have been identified for building cluster curriculums.
	B. Articulation agreements reached between Kellogg Community College and CAVC regarding advanced placement in selected programs based upon achievement of stated verified performances.
	C. Career development concepts have been identified and correlated with learner reference goals and school grade continuum.

	D. A proposed systematic career decision-making model has been explored with sending local school districts which provides articulation with the Kellogg Community College serving the same sending secondary schools as the Calhoun and Branch Area Vocational Centers.
	E. CAVC, Kellogg Community College and Michigan Department of Education cooperatively sponsored a series of Career Education Articulation Project Dissemination drive in conferences to report the KCC-CAVC plan.
	F. The identified CAVC and BACC clusters are the same for all practical purposes as the USOE Cluster Plan. This plan has also been adopted by the Intermediate Districts of Calhoun and Branch as a part of the areawide K-12 career education program. Media in the regional media resource centers have been classified according to this same USOE Cluster Plan.
	G. BACC has implemented a pilot articulation agreement for advanced secondary student placement at the community college in Drafting, Office Occupations and Metal Working.
2.5 Delivery systems which allow easy access to the programs once a decision has been reached to leave school.	A. Area Center facility use contracts by program area have been devised in which adult programming is continued in the Area Centers inclusive of non high school completers under the auspices of the Kellogg Community College.
2.6 Curricular modules and materials which are effective in terms of attaining behavioral objectives and efficient in terms of cost.	A. See 1.7. B. Inventories are currently being developed for each cluster which include tasks and/or performance goals, learning activities, learning resources and proposed evaluation procedure.

C. A computerized inventory system has been devised and is currently being piloted which is a combination of learning resources being used by each of the two Area Vocational Centers and the Kellogg Community College and which may be exchanged between institutions.

D. Instructional mdoules have been exchanged between the CAVC and Kellogg Community College programs of Data Processing and Automotive Mechanics.

E. A module development "check list" has been developed and selected people trained in its application.

F. Model modules have been developed as a part of curriculum content development and delivery training program to be used as examples for continuing curriculum development.

G. A model (Mission through Steps) has been devised to enable programs in related work areas to check out overlap of student learning tasks and thus identify areas of curriculum trade-offs.

GOAL #3 — To demonstrate concepts and practices which contribute in substantial ways towards removing the current confusion as to the relationship between Career Education and Vocational Education and of each to all of Education.

Objectives Cited	Accomplishments
3.1 Establish area consensus and adoption of career education development and preparation models.	A. Project staff have adopted School Component — Career Development and Preparation Continuum Model.
	B. Model is currently under consideration by areawide advisory committees for both career and vocational education services.
	C. A community represented Area Vocational Education Needs Assessment Committee formulated recommendations for the continuing development of career development education at the Area Centers and local sending school districts.

	D. Formation of the Career Education Planning District (CEPD) Coordinating Council for purposes of approval of areawide career education plans.
	E. Disseminated an areawide vocational education Needs Assessment Report to all local CAVC participating school district boards of education members, superintendents, principals, curriculum directors, and guidance directors. Recommendations highlighted included pursuing the development of occupational clustering as an occupational training program organization and a strong position for career development skills being taught to students.
	F. Policy Advisory Committee for Area Vocational Education formulated a year-long program of work around the findings reported by a community represented Area Vocational Education Needs Assessment Committee. Special task forces have been established for career development programming, scope and quality of occupational programming, and special needs programming.
3.3 Available "career cluster" information and proposed structures for use in Career Education's early secondary laboratory model for career education.	A. First drafts of prototype exploratory clustered curriculum outlines for use in junior high and early high school laboratory model for Career Education have been devised for Personal Services, Energy and Propulsion, Business and Communications Media, and Materials and Processes.
3.5 Provide assistance to the Instructional Media Services in the organization and correlation of occupational clusters information and structured to the educational goals of the district.	A. Other cluster project materials have and continue to be researched as input for CAVC cluster curriculum preparation and development. B. A staff Cluster Resources Center has been established at the CAVC.

	C. A joint CAVC/KCC production agreement for development of "in house" cluster curriculum media has been established. D. Area Vocational Center learning resources materials have been identified, organized, and displayed in the Learning Resources Center by occupational cluster. E. Six health cluster, one distributive education cluster, and one general student use personal awareness and grooming slide tape program for in house use were produced.
3.6 Operationalize within the Vocational Centers a career development program thrust as an integral part of each cluster job preparatory program.	A. Career development instructional strands of self awareness and exploration; career awareness and exploration; decision-making and planning; and placement have been identified with related specific learner performance goals for purposes of integrating into the regular vocational cluster preparatory curriculum. B. A career development decision-making model is being piloted to assist students relative to program placement decisions at the home school and/or the Area Centers. (See 2.4 for Community College articulation.) C. KCC/CAVC Articulation Project Director worked with fifty-five students in trade and industry, secretarial and health occupations at the CAVC and BACC regarding expanding their educational level relative to the Articulation Agreements Program between the Centers and the Community College. D. See 2.1, Items C through H. E. See 2.1, Items I through K. F. Career development curricula inclusive of job placement has been identified Goals through Steps for the Calhoun Area Vocational Center.

EVALUATION

THIRD PARTY EVALUATION

FINAL REPORT

Year One

Project Title:

The Occupational Cluster Concept -
A Curriculum Tool for Improving
Career Development and Preparation Education

Prepared For:

Calhoun Area Vocational Center

Robert Harberts, Director

Prepared By:

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June 30, 1976

The primary activity for the third party evaluation during the final quarter focused on the compilation of base-rate data to be used to measure pre-project functioning and project impact. This report includes the results of this effort in print-out and narrative form. It also includes a summary statement regarding each of the other major concerns of the project. Status reports and recommendations are also addressed for each major issue.

As summarized in an earlier report, the major components of the project are as follows:

1. A Management Model
2. An Internal Process Evaluation
3. The Clustering of Vocational/Technical Curriculum
4. Support Components
5. A Career Development Curriculum
6. Placement Services and Skills
7. Needs Assessment, Follow-Up, Dissemination and Articulation

Table 1 summarizes project component status as of February, 1976, current status and predicted or anticipated status by the completion of the second year of the project. With the modifications provided in training, it is important to note that the Cluster Curriculum effort has been moved to the "develop" stage until the fall of 1976. (See SUMMARY.)

Common to all of these components is CAVC's continuing effort to provide its staff with the skills which are needed to bring each component to its full potential. A major thrust in this effort has been the inservice training. The purpose of the training is seen to enable the staff to achieve the greatest impact possible from the cluster project. Thus, the focus of the training is on increasing the teachers' repetoire of effective development and delivery skills.

To further facilitate this objective, it is recommended that the clustered module development effort not only combine the career development with the career preparation, but also should include all of the project components. In other terms, each instructional module should address the issues of self-awareness, career awareness, decision-making, placement, academic skills, vocational/technical skills and support strategies.

Thus, each of these major project components may be accounted for in each module as follows:

1. Self-Awareness = input and diagnosis made explicit.
2. Career Awareness = show relationship between each module and the jobs within cluster that it serves to prepare.
3. Decision-Making = link each module to student values.
4. Placement Skills = student determines how he/she will convert module performance into a fact-based asset.
5. Academic Skills = math, language and reading implications of module.
6. Vocational/Technical Skills = relate module skill to program management system in module overview.
7. Support Components = determine physical, intellectual and emotional support the module requires from the students' living, learning and working environments.

While the particulars of the training are addressed in the main body of the CAVC report, several points are warranted at this time.

1. The trainees should be provided ongoing assistance in their developmental efforts.

2. The trainees should be administratively encouraged and monitored in their efforts to utilize their skills.
3. The trainees should be informed of all future decisions relative to project plans and intent and provided a schedule of implementation.
4. The trainees should receive ongoing follow-up training to consolidate their learnings and to provide them with in-class implementation support.

BASE RATE DATA

Form I

Form I of the Career Development and Preparation Inventory was designed to elicit the students' frame of reference regarding self-awareness, job awareness, school awareness, career decision-making, career planning, job and school acquisition skills, career preparation, and meeting job and school requirements.

This opinion input will enable the project staff to understand more clearly how the students experience themselves, their preparation for work or further schooling and their ability to place themselves in the world of work. Base rate data will further enable project staff to translate student perceived needs into appropriate curricular revisions. In addition, this data will be useful to compare student perception with instructor reported delivery and measured student skill before and after cluster project implementation as one measure of project impact.

The results of the administration of Form I to a 25% random sample (N = .235) of CAVC students is shown in Appendix H. The data from this opinion inventory is reported below in sections which address the major issues included in the instrument.

A. How do the CAVC students perceive knowing about themselves in relation to their post-graduate activities?

The data indicates that, overall, the CAVC students feel good about how much they know about themselves in relation to work or further training activities. More specifically, where 56% of the students felt they were uncertain of themselves prior to CAVC attendance, 77% now feel more certain of themselves as a result of the program. Ninety-eight percent of the sample felt that knowing yourself in relation to the world of work is important or very important.

B. How do the CAVC students perceive how much they know about jobs or schools?

An analysis of the computer print-out reveals a generally favorable reaction (80%) to how the CAVC program prepared its students in knowing about jobs and schools. Knowing how courses relate to work, how work affects way of life and how to ask for job information were rated lowest with approximately 20% of the students feeling they did not learn anything new in these areas. Ninety-seven percent of the CAVC sample agreed that knowing about jobs or schools is important.

C. How do the CAVC students perceive how well they can make career plans and decisions?

The overall finding is that CAVC programs provided for a perceived 10% increase in career decision-making and planning skills over the time of their stay at the center. This difference suggests that relatively little attention has been given to these skill dimensions.

The specific skill deficits, as envisioned by the students themselves, include:

1. knowing how to evaluate job offers;
2. knowing how to use personal values and interests to choose a job;
3. knowing how to choose an occupation;
4. knowing how to develop a plan to reach occupational goals.

D. How do the CAVC students perceive themselves being able to get accepted by an employer or a school?

Of all the dimensions examined in the opinionnaire, this area reflected the greatest student perceived deficit. Further, it is the area which demonstrated the largest discrepancy. Each of these points will be dealt with in turn.

To the point that many students experience an inadequacy in knowing how to "land a job," the reader is directed to the data displayed in Appendix H. Student responses across a majority of the items in this section of the opinionnaire reflected a general perceived neglect of the skills involved in getting accepted by an employer. That is, more than 50% of the students indicated that these skills were not taught or taught very little in 13 out of 14 items. The most dramatic perceived deficits are in the areas of evaluating jobs, requesting an interview, writing a resume and terminating a job.

As to the discrepancy in the data, the number of students that claimed significant growth in job acquisition skills does not agree with their self-ratings. More specifically, while a majority of students anticipate having considerable difficulty in knowing how to get a job, 73% opined they know some to a lot more than they did before their participation in CAVC programs. This discrepancy will be further examined and expanded upon during the first post-test analysis.

E. How do the CAVC students perceive themselves knowing how to perform the skills required by the job or school choice?

With regard to the job skills or vocational/technical preparation, the greatest percentage of students indicated that the CAVC program taught them many new things. The weakest area of learning, as perceived by the students, was in the math and language skills related to job performance. Knowing how to use the tools and equipment required of the job represented the area of greatest program strength as judged by the students.

Form II

Form II of the Career Development and Preparation Inventory was designed to measure the students' ability to perform several skills related to job and self-awareness. In particular, the students are asked to demonstrate how well they can relate what they are doing to the world of work and to describe what they feel is important about different aspects of the job, such as working conditions, benefits, job activities and requirements. A copy of the Form II inventory and the computer print-out of the data collected from this instrument are included in Appendix I. An analysis of those results for each major issue is described below.

A. To what extent are CAVC students aware of jobs for which they are preparing?

An analysis of data in Appendix I reveals that the average CAVC student can name 3.63 jobs for which he/she will be prepared to enter directly from high school. The minimum-maximum scores indicate that the number of jobs listed by the CAVC students ranged from 0 through 11.

In light of the specific nature of the Cluster Project, the data on this dimension is considered critical. Thus, an analysis of the pre-post test differences will be treated as one important measure of project impact.

B. To what extent are CAVC students aware of the job ladder within an occupational cluster?

The data shows that the average CAVC student knows about 2.22 jobs which require more than high school training and are related to the one for which he/she is currently preparing. The term 'related' is interpreted to mean that most of the preparation the student is receiving in his/her high school program would be useful in the more advanced job. This clearly represents another area which should improve significantly to demonstrate project impact.

C. To what extent are CAVC students aware of their job related values?

Overall, the average CAVC student is aware of approximately two values related to each of the job job selection criterion. Specifically, there was a mean of 2.17 values for working conditions, 2.19 for benefits, 1.67 for job activities and 1.71 for job requirements. No student at CAVC could list more than four values for any one dimension.

It has been shown that job acquisition based on personal values is a highly significant factor in job satisfaction. The lack of personal value awareness among CAVC students is considered critical. Further analysis of items 19 through 22 in Appendix I shows that the mean students' ability to evaluate jobs in relation to these values is almost negligible ($\overline{X} = .59$). Thus, a CAVC student has no apparent means of determining whether or not he/she will be happy on a job.

D. To what extent are CAVC students able to evaluate themselves in terms of job performance and personality requirements?

A picture of the average CAVC student shows someone who is able to operationally define up to three job performance requirements, develop a scale to measure only one of these most of which is inaccurate as judged by the program instructor.

The discrepancy between reported ability and measured functionality is not unexpected. Several questions remain to be answered by post-test data. Among those answers will be information concerning the efficacy of opinion data as it relates to skill-based information before and after training.

Form III

Form III of the Career Development and Preparation Inventory was designed to elicit skill-based information from the students about career decision-making and career planning. This form of the inventory specifically addresses the skills of value clarification, scaling, and weighting, making a career decision, short-term planning and long-term career planning. The results gathered from this survey are reported in Appendix J and the major findings are reported below.

A. How well can the CAVC students operationally define their job-related values?

For many students, it is of no particular difficulty to indicate what is important to them in choosing a job. The problems arise when they are asked to define these values in observable and measureable terms. As in the present case, an analysis of the data shows the average CAVC student can operationalize 1.31 values. The range for all students was 0 to 3, with a standard deviation of 1.33, suggesting that most students listed and operationalized only one value. Further support that the CAVC is left with a limited repetoire of responses to accurately predict job satisfaction.

A further analysis of the data in Appendix J shows that the CAVC student can develop 3.39 scale steps which can be used to measure his/her values, although when provided a weighting scale, they can tell you their prioritized importance. This suggests that the CAVC student is left without an operationalized and replicable way to relate what is important to them in job selection.

B. How well can CAVC students make a systematic career decision?

As can be seen in Appendix J, the mean score in decision-making among CAVC students is .37 out of a possible four points. In no instance did a student score higher than two with more than two-thirds of the students rated between 0 and 1. The implications from this data are clear; career decision-making is not currently taught at the Calhoun Area Vocational Center.

C. How well can CAVC students functionally relate their current and future preparation to their career goals?

The data shows that CAVC students can list 1.56 academic courses, 1.52 vocational courses and .88 work experiences from their high school period that would help prepare them for their job choices. Additionally, they can list .96 academic courses, .71 vocational courses and .35 work experiences from their post-high school period that will help them prepare for their long-term career plans. Thus, the data suggests that the CAVC students have little in the way of knowing how to better prepare themselves for their life placement. Further verification and analysis of this skill dimension will be made in the description of Form IV.

Form IV

Form IV of the Career Development and Preparation Inventory was designed to elicit skill-based data on the students' ability to place themselves in the world of work. Structurally, the test is composed of five job acquisition skill dimensions: 1) job goal, 2) job information, 3) job sources, 4) personal assets, and 5) application and interviewing. The pre-post test data from this form will provide information concerning the impact of training on the students' employability skills. As such, it is one view of the accountability of the placement service.

The results from this part of the survey are included in Appendix K of this report.

A. How much job information does the CAVC student have?

Given that most of the CAVC students have identified a job goal, the next issue was to determine what they knew about their job choices. In relation to job activities, the respondents were given one point for each job activity listed, one point for an activity that was cluster specific and one point if the activity was program specific.

An analysis of the data in Appendix K shows that the average student could list 4.9 job activities, only two of which were cluster and program specific. This simply suggests that most of the activities they listed were applicable to a wide variety of jobs and did not reflect a sophisticated expertise of their specific job choice.

In general, the average CAVC student has the following job information:

1. knows three job-related personality characteristics;
2. knows one training requirement;
3. cannot accurately estimate the salary range within $ .50 per hour;
4. knows two jobs to which he/she could advance to;
5. knows three types of places that would employ them;
6. knows three working conditions which accurately reflect his/her job goal; and
7. knows nothing about the present labor market supply and demand situation for his/her job goal.

B. How many sources can the CAVC student list where potential employers can be identified?

When asked to list sources of potential employers, the average CAVC student could name two places or materials and less than one type of person from whom this information could be obtained. While no generalizations are proposed at this time, this would have to be considered a severe limitation in the students' placement potential.

C. How well can the CAVC student identify personal assets they can use to help them get a job?

Research has indicated that, in general, employers are looking for three things in a potential employee: 1) Can he/she do the job? 2) Is he/she dependable?, and 3) Can he/she get along with others?

In this regard, the data shows that the mean number of fact-based assets the CAVC student can list is one in each area. That is, he/she can say only one thing about his job skill, dependability and interpersonal skills that is tied to a specific behavior. It is felt that, overall, the CAVC students do not know how to "sell themselves" in the working world.

D. How skilled are the CAVC students in applying and interviewing for a job?

The average CAVC student can list three things to bring when filling out an application. In preparing for an interview, they can list 3.5 things to do to get ready, such as having directions and get appropriate clothes ready. During the interview, there appear to be three things that are important to do, and three things that are important not to do. While the number is in itself only quantitatively significant, the quality of these items were also of little value. This issue will be addressed at greater length in the post-test assessment.

The students involved in the compilation of base rate data demonstrated a small repetoire of responses for being able to answer interview questions with a fact-based asset. Those same students also responded to a simulated interview question in a way which ignored communicated feeling and meaning. Overall, these responses were rated at .92 on a four-point scale.

Form V

Form V of the Career Development and Preparation Inventory was designed to elicit the teachers' frame of reference regarding the extent to which they delivered self-awareness, job and school awareness, career decision-making and planning, job and school acquisition skills, career preparation and meeting job and school requirements. The primary purpose for this form of the inventory is two-fold: 1) to understand more clearly exactly what content was delivered in the program and how well students were perceived to acquire this content, and 2) how does this data relate to how the student perceived receiving and learning this content. Thus, each student perception has an internal source of verification.

The data collected from Form V is shown in Appendix L along with a copy of the test and scoring guidelines. This data is reported below in sections which address the major issues included in the instrument.

A. How does the CAVC staff perceive having helped their students know themselves in relation to the world of work?

Overall, 89% of the CAVC staff saw their students as uncertain or very uncertain of themselves in relation to the world of work prior to the program. After training, 96% of the staff felt their students were much more or more certain of themselves.

In terms of delivery, several issues were either mentioned in passing or not taught at all. For example, 29% of the staff briefly touched on knowing their students can find rewarding type work. However, 78% of the staff indicated that 'knowing yourself' is very important when planning a career.

B. How well does the CAVC staff perceive having helped their students know about careers?

Teacher perceptions of career information delivery was relatively uniform. As a group, most staff felt that they had covered job information, such as working conditions and requirements, in some detail. The leat attended areas were relating courses to work, similarities and differences among jobs, and knowing what questions to ask to get job information. Again, the teachers felt their students benefitted greatly in this area as a result of their program delivery.

C. How well does the CAVC staff perceive having helped their students know how to make a career choice and develop a career plan?

While the largest percentage of the staff indicated they covered this area in considerable detail, there were several issues that received little to no attention. These included the following:

1. Knowing how to choose an occupation (34%).
2. Knowing how to develop a plan to reach occupational goals (35%).
3. Knowing how to use personal values to choose a job (37%).
4. Knowing how to evaluate job offers (46%).

Overall, this issue was considered to be very important when planning a career by a staff, 89% of which saw their students somewhat and a lot better as a result of the program they were in.

D. How well does the CAVC staff perceive having helped their students know how to get accepted by an employer?

In general, the CAVC staff agreed this was perhaps the most neglected area of those mentioned in the inventory. This is to say that there were a number of issues which the teachers felt they did not teach directly or only mentioned in passing. The most significant omissions related to resume writing, interviewing, and job evaluation.

E. How well does the CAVC staff perceive having helped their students know how to perform job related skills?

With the exception of knowing how to set a work goal and develop a program to reach it, the staff rated their job skill delivery highest of all areas. Sixty-five percent of the staff rated their students as much better than in the beginning of the course where 85% of these staff feel having job skills is very important when planning a career.

Summary of Base-Rate Data

Table 6 displays a summary of the base-rate data comparing teacher and student opinion with student skill data. The most significant finding relates to the discrepancy between opinion and skill data. As can be seen, there is considerable variance between what students feel they know and what they are measured to actually be able to do. In this regard, the inclusion of the two forms of the Career Development and Preparation Inventory is empirically justified. That is, while the opinion data can be used as input information concerning where people think they are, skill data is necessary diagnostic information which may be used as an accurate measure of functionality.

Table 6. Summary of Base-Rate Data Comparing Opinion Data with Skill Data

STUDENT OPINION	STUDENT SKILL	TEACHER OPINION
	Self-Awareness	
21% increase in self-awareness as a result of program.	Knows 2 job related values for working conditions, benefits, activities, and requirements. Can only operationalize one of these values and cannot rate a potential job in relation to this value.	Majority of self-awareness items stressed and covered in some detail.
	Career Awareness	
80% confident of job information.	Knows 3 requirements, can operationalize and measure only one of these which is judged to be inaccurate.	Stressed and covered majority of items in some detail.
	Career Decision-Making And Planning	
Most felt they learned a few to many new things.	Can operationalize one job value, cannot accurately scale this value in relation to a potential job and cannot perform one measureable step in making a career decision. Can list one academic and one vocational requirement for career ladder.	At least mentioned, stressed many and covered many others in some detail.
	Placement Skills	
	Student Knows:	
25% judged growth as highly significant.	3 personality characteristics 1 training requirement 2 future related jobs 3 places to apply to Nothing about labor market 2 places and 1 person type for possible job opening 3 assets of which they can only operationalize 1 3 things to do before, during and after an interview Does not respond accurately to interview questions and ignores the interviewers communicated content and feeling.	Most items stressed and covered in some detail.

Management Model

The development of an instructional management system will enable CAVC to functionally inter-relate all of the project oriented developmental and delivery components with all other operational objectives. The emergence of a management process for the instructional delivery system is currently emerging out of the staff training activity. Development responsibilities have been assumed by a number of staff and has been incorporated into their performance contracts.

While the primary goal of this model is to facilitate all supervision and monitoring functions related to project development, delivery, support and follow-up activities, the first year's efforts have been pre-occupied with developmental needs. Due to the size of the effort, it is anticipated that this developmental emphasis will continue to be of fundamental importance in project goal acquisition. Thus, a systematic integration of developmental and delivery efforts should be a primary goal for the project's second year of operation. For example, career development and placement skills may need to be delivered in its generic form by standard teams while clustered forms of career skills can be simultaneously developed. The delivery of the ultimate vocational/technical integrated versions of career development skills could be made during year three of the project.

Below are a suggested list of major steps which are viewed as critical to the development of the total project management model. Further efforts will be required to relate these components to CAVC operations and should be explored and operationalized during the summer and fall of 1976.

The generic origin of these steps which were included in a previous report as "Project Product Development Steps" (see pages 15 through 17, Third Party Evaluation Report I, February 18, 1976).

PRIMARY STEPS IN THE DEVELOPMENT OF AN INSTRUCTIONAL MANAGEMENT SYSTEM

1. Develop all program curricula into management model structure.
2. Get Advisory Committee - KCC - Branch and local school sign off on content.
3. Examine for commonalities among programs within clusters.
    a. Begin at goal level.
    b. Continue down through skill level.
4. Where commonalities occur:
    a. Identify generic skill.
    b. Develop delivery module.
    c. Develop applications and transfer strategies for clustered uses.
5. Internal and external input and approval.
6. Develop alternative instructional sequences which can be made available to students within clusters.
7. Integrate Career Development skills into clustered modules.
8. Integrate Career Placement skills into clustered modules.
9. Develop a model of Career Development and placement integration into all programs.
10. Conduct dissemination training in Career Development and Placement skills in local high schools and junior high school.
11. Develop an articulation plan for the delivery of Career Development and Placement skills in the district.
12. Present articulation model to local and ISD administration.
13. Monitor curriculum development efforts.
14. Develop support system goals and programs.
15. Initiate system pilot, evaluation and modification.

Vocational/Technical Curriculum Clustering

Within clusters, the current status of the cluster curriculum development effort continues to be extremely diverse. There are at least as many different stages of development within clusters as there are between occupational clusters. Of particular concern at this stage of development is the systematization of clustering steps in the first wave of delivery.

Accordingly, plans need to be developed and sequenced so as to coordinate this effort and to increase the feasibility of its successful completion. First, modules which have already been developed at the program level could be earmarked for cluster implications through instructor consensus. Second, additional modules which carry identified cluster potential can be scheduled for early development using the new module development process delivered in recent training. These first two steps will help to insure that at least some clustered modules can be made available to students early in the 1976-1977 academic year.

A third strategy entails the use of the systematic management model to develop clustered curriculum. The procedure to accomplish this is outlined in a previous section of this report. This approach will help to insure a systematic and comprehensive coverage of all possible permutations of content within a cluster. It will also facilitate the subsequent integration of career development and placement skills and academic skills into the clustered modules.

Career Development and Placement Skills

The career curriculum development effort represents one of the major goals of the cluster project. An analysis of the current status of that thrust suggests that both the career development and placement skills modules will be ready for delivery early in the 1976-1977 school year.

While a generic form of these curriculum would be delivered initially, attempts are now being made to develop a model for translating the career development skills into the cluster curriculum. An early fall pilot of this program is anticipated. A similar attempt at a clustered form of the career placement curriculum should be ready for a Spring pilot.

Instructional Strands

Early in the project, the director and his staff identified a large number of instructional strands or outcome areas that were deemed to be desirable products of the project. As currently envisioned, it will not be possible to simultaneously implement all of these outcomes. Thus, CAVC is currently in need of input concerning the priorities that might best meet their developmental and delivery schedules.

Accordingly, the following Table 7 is a compilation of outcome areas by priority. The recommended priorities are based upon current status of program development and current staff skills.

A priority of I indicates that this strand should receive immediate attention. Immediate should be interpreted as being ready for delivery in the Fall or Winter of 1976. Priority II suggests a target of Spring, 1977 and priority III should be earmarked for delivery in September of 1977.

Table 7. Recommended Priorities for Instructional Strands Identified in the Cluster Curriculum Project

CAREER DEVELOPMENT	PRIORITIES		
	I	II	III
I. Self Awareness and Exploration			
A. Increased self-awareness, PIE			
1. ability to identify physical skills.			X
2. ability to enumerate what student feels is important.		X	
3. ability to identify what students like to study and think about; what intellectual skills they have; what study challenges they like.	X		
4. ability to describe abilities and limitations.	X		
B. More clarified set of beliefs and values.			
1. ability to describe own interests and values.	X		
2. ability to identify and describe similarities and differences in values and beliefs between themselves and others.		X	
3. comprehension that self-development as a result of interaction between ones interests, beliefs, values and his or her environment.	X		
C. More positive attitude towards themselves.			
1. understanding that self concept can be the result of learning and physical growth.			

CAREER DEVELOPMENT	PRIORITIES		
	I	II	III
2. recognition that students' beliefs and values determine his or her emotional responses.	X		
3. ability to evaluate themselves and make definitive statements which give evidence of accepting and liking themselves.	X		
D. Increased interpersonal skills.			
1. ability to identify the differences between individual and group roles.		X	
2. understanding of the needs and individuality of others.	X		
3. ability to apply attending, responding, personalizing and initiating skills.			X
II. Career Awareness and Exploration			
A. An expansion of career or occupational awareness.			
1. ability to identify a number of alternative occupations.	X		
2. ability to describe the relationship between an occupational role, its setting, and life style.	X		
B. An increase in awareness of career information sources.			
1. ability to identify a variety of types of occupational information.	X		
C. The development of information gathering strategies.			
1. ability to acquire information through interviewing.	X		
2. ability to raise questions about occupations that give information important to them.	X		

CAREER DEVELOPMENT	PRIORITIES		
	I	II	III
D. The personalization of career information and experiences.			
1. ability to identify occupations which are related to their aptitudes and interests.	X		
2. ability to identify the factors that affect their job success, advancement, and mobility.	X		
III. Career Decision-Making and Planning			
A. The ability to select career or occupational routes.			
1. decision-making ability.	X		
2. knowledge of the steps to be taken and the factors to be considered in career planning.	X		
3. ability to narrow down occupational choice to a point of identifying occupational clusters.	X		
4. ability to determine the potential for future advancement/personal growth in work of their choosing.		X	
B. The skills for developing programs for pursuing a career.			
1. ability to set goals and plan schooling activities for clarification and/or preparation toward their achievement.		X	
2. ability to associate their own abilities and limitations with possible success in their present and future schooling or work.		X	
3. involvement in career decision-making.	X		

CAREER DEVELOPMENT	PRIORITIES		
	I	II	III
4. ability to relate their personal interests and values to types of work and associated life styles.	X		
IV. Placement			
A. Job acquisition skills.			
1. ability to develop a job list.	X		
2. ability to develop a total job application.	X		
3. personal interview skills.	X		
4. ability to develop valuable educational and work experience information for job getting.	X		
B. Skills for acquiring occupational openings.			
1. ability to identify, locate, and utilize sources that contain information about work.	X		
2. ability to develop a "job list" with appropriate information.	X		
C. Planning skills for career growth.			
1. ability to identify sources of training and education for work.		X	
2. ability to relate in-school and out-of-school training programs to career goal achievements.		X	

CAREER PREPARATION	PRIORITIES		
	I	II	III
V. Vocational/Technical and Related Basic Academic Skills			
A. Job task manipulative skills with the tools and equipment common to a chosen occupational family.			
1. ability in the application of tools and equipment common to a selected occupation.	X		
2. skill in the application of tools and equipment common to a family of occupations.	X		
3. knowledge of occupational and job standards.	X		
B. Job task information acquisition and processing skills.			
1. ability to handle the numerical requirements of their current job training program.		X	
2. ability to handle the numerical prerequisites for continued career or job training program placement.		X	
3. level of generally useful numerical skills.		X	
4. abilities to handle the communication skills required by the work for which they are training.		X	
5. ability to handle the prerequisite communication skills for continued job or career training program placement.		X	
6. level of generally useful communication skills.			X
7. level of learning process skills.			X

CAREER PREPARATION		PRIORITIES		
		I	II	III
8.	level of generally useful problem solving skills.			X
9.	level of generally useful decision-making skills.			X
C.	Work organization skills.			
1.	skill achievement for programming toward work accomplishments.		X	
D.	Work attitudes and values particular to occupational families.			
1.	application of interpersonal skill achievement relative to a chosen occupational family.			X
2.	generally useful information regarding worker environments relative to organizations, typical labor/management attitudes.			X
E.	Safe work habits.			
1.	"work safe" skills and understanding.	X		
2.	"application" of safety skills and understanding.		X	

Evaluation Summary

The first year of the Cluster Curriculum Project yielded highly significant developmental growth. The project staff demonstrated expertise in mobilizing for the effort and versatility in their ability to identify and assemble the sources of input that would be necessary to complement staff skills. From the beginning, there was an explicit staff commitment to improve, often in the face of dramatic developmental demands and potential operational changes. The Calhoun Area Vocational Center staff demonstrates a strong willingness to grow.

The identification and subsequent training of a core or "lead-horse" group has had several important implications for the success of the project. First, it provides the project with personnel who can begin to develop programs in areas which are considered high priorities and which have not previously been developed. Second, it provides the project with its own potential skills training capacity as the most functional of those personnel become involved in the training process. Third, early active commitment serves as a model and agent for subsequent groups of staff that remain to be trained.

Recent changes in administration have put a renewed urgency on the need to make project goals consistent with CAVC goals. Given this visible compatibility and concurrent administrative support, the project will continue to grow. If the administration does not visibly and actively support and encourage implementing the skills from training and the development of the total instructional delivery system, the project will be less than it could be.

The core group has been provided training in the following skills:

1. Content Development
2. Gathering Input
3. Diagnostic
4. Goal Setting
5. Sequencing
6. Methodology
7. Teaching Organization
8. Learning Management
9. Monitoring
10. Learning Support Development
11. Career - Curriculum Integration

Each of these skills have been operationalized and a module development checklist has been generated to facilitate the instructor's use of these skills in their developmental efforts. Again, if staff are encouraged to use these skills, they will be used, otherwise, they will not. At the discretion of the administration, the utilization of these skills could be monitored and statistically linked to project outcomes and project costs.

With feedback from this data, program modification can be empirically-based. This potential describes an economically accountable, self-regulating system that instantly moves toward higher levels of effectiveness. It defines an educational system for the 80's.

CONCLUSIONS

The project has effected a solid project management base, staff receptivity to the goals of the project and commitment to training. The comprehensive nature of the effort creates an extraordinary burden on an existing system. The requirements call for many components to evolve almost concurrently. The implications are that a relatively high level of participatory activity must be maintained at both the instructor/counselor and the administrative levels. Instructional staff in their own training efforts and cluster curriculum development and the administrative staff in visibly encouraging and actively developing the supportive services necessary for implementing those training skills and the development of a total instructional delivery system. The administration will need to closely monitor and supervise the utilization of newly acquired staff skills and statistically seek to link the project learner outcomes to the project efforts and costs.

The primary recommendations are that:

1. The major project components continue to be subjected to a systematic program of planning, development, delivery, evaluation and modification.

2. A strong program of staff training be continued throughout the project designed to upgrade staff in curriculum development and delivery skills.

3. An effective monitoring and supervision of applied staff acquired skills be pursued.

4. An ongoing developmental thrust be continued on into the second and third years of the project even though the emphasis will shift to program implementation, evaluation and modifications.

APPENDIX

APPENDIX A

PROJECT GOALS AND OBJECTIVES

1. Primary Goal:

To implement and as a consequence demonstrate the application of the concept of "career clusters" as an organizational technique to facilitate the delivery of career development and occupational preparatory instruction at the high school level in the Calhoun and Branch Area Vocational Education Centers.

Principal Objectives:

1.1 A broadened curriculum offering which is more representative of the jobs existing in the labor force.

1.2 Job preparatory programs which enable the student to equip himself or herself for several job entry options.

1.3 A curriculum in which career options and hierarchies are more visible and which promote both the lateral and upward mobility of graduates whether they choose entry into a job or to pursue further education.

1.4 A broadened base of career information formulated to facilitate the comparison of worker traits and individual interests and abilities as input into a student applied career planning and decision-making model.

1.5 An improved ability to communicate vocational education and training program outcomes to the employing community and the related units of business, industry, the professions and government.

1.6 A curriculum which affords greater visibility of job preparatory options for mentally and physically impaired and otherwise disadvantaged students.

1.7 A curriculum structure which enables the individual to pursue his or her interests in a variety rather than one occupational area.

2. Correlary Goal:

To effect and implement refinements in existing delivery systems and demonstrate a comprehensive vocational education proficiency model; inclusive of an individualized learner process approach, as an initial step in translating local district, intermediate district, state, and national goals for occupational education (relative to its contribution towards optimizing employment) into reality.

Principal Objectives:

2.1 Establish more effective systems for accommodating the changing attributes of the individuals entering the occupational training system (student information system).

2.2 Curriculums based on occupational information and societal demands as modified by the student attributes.

2.3 Curriculums reflect the occupational demand structure — new curriculums developed, outmoded ones dropped.

2.4 Curriculums which reflect continuity from early and upper secondary to post secondary occupational education institutions.

2.5 Delivery systems which allow easy access to the programs once a decision has been reached to leave school.

2.6 Curricular modules and materials which are effective in terms of attaining objectives and efficient in terms of costs.

3. Correlary Goal:

To demonstrate concepts and practices which contribute in substantial ways towards removing the current confusion as to the relationship between Career Education and Vocational Education and of each to all of Education.

Principal Objectives:

3.1 Established area consensus (intermediate and local participating school districts) and adoption of career education development and preparation models K-14.

3.2 Available "career cluster" information and proposed structures for use by the Calhoun-Branch K-12 Career Education Project for application in the elementary awareness and secondary exploration components as part of the integrated curriculum model.

3.3 Available "career cluster" information and proposed structures for use in Career Education's early secondary laboratory model for career exploration.

3.4 Provide "career cluster" information and proposed structures that contribute to the efforts of the Kellogg Community College to effect expanded offerings of vocational and technical education at the post high school and adult levels.

3.5 Provide assistance to the Instructional Media Services in the organization and correlation of occupational clusters information and structured to the educational goals of the district.

3.6 Operationalize within the vocational centers a career development program thrust as an integral part of each cluster job preparatory program.

APPENDIX B

ORGANIZATIONAL REFERENCE GOALS
AREA VOCATIONAL CENTER SERVICES

(Learner Situations Sought)

1. The student will benefit in his general and academic school work by taking vocational preparatory and/or exploratory courses concurrently.

2. — will comprehend that societal changes dictate his need to develop his abilities to make adjustments.

3. — will have investigated an occupational spectrum with a consideration of his personal characteristics and occupational requirements.

4. — will have had applied a rational decision-making process in efforts towards making an occupational choice.

5. — will be able to act responsibly when confronted with problems and situations new to his experience.

6. — will be able to make application of science concepts related to his area of job preparation.

7. — will value safe work habits and recognize conditions contributory to good physical and mental well-being.

8. — will possess a positive self-image.

9. — will possess social interaction skills enabling entry and advancement on a job.

10. — will have an opportunity to acquire a job skill regardless of handicapping condition.

11. — will have an acquired general and/or specialized job skill regardless of his ultimate career choice.

12. — will understand work and its implications in family life.

13. — will value a concern for the quality of worker environment.

14. — will be able to identify possibilities for continuing self-improvement.

15. — will have acquired post high school training placement skills.

16. — will have acquired job acquisition skills.

APPENDIX C

TREATMENT GROUP -- OUTCOME AREAS OR INSTRUCTIONAL STRANDS

I. Self Awareness and Exploration

II. Career Awareness and Exploration

III. Career Decision-Making and Planning

IV. Placement

V. Vocational/Technical and Related Academic Skills

OUTCOME AREAS OR INSTRUCTIONAL STRANDS AND TREATMENT GROUPS

TREATMENT GROUPS / TREATMENT GROUP OUTCOME AREAS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL LOCAL DISTRICT 9-12	SENIOR HIGH SCHOOL AREA CENTER 11-12
CAREER DEVELOPMENT:			
I. Self Awareness and Exploration	X	X	X
II. Career Awareness and Exploration	X	X	X
III. Career Decision-Making & Planning	X	X	X
IV. Placement		X	X
CAREER PREPARATION:			
V. Voc./Tech. and Related Basic Academic Skills			X

TREATMENT GROUPS / OUTCOME	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL LOCAL DISTRICT 9-12	SENIOR HIGH SCHOOL AREA CENTER 11-12
I. A. Increased self-awareness, PIE	X	X	X
B. More clarified set of beliefs and values	X	X	X
C. More positive attitude towards themselves	X	X	X
D. Increased interpersonal skills.	X	X	X

TREATMENT GROUP / OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL LOCAL DISTRICT 9-12	SENIOR HIGH SCHOOL AREA CENTER 11-12
I. A. Increased self-awareness, PIE			
1. Have students increased their ability to identify their physical skills?	X	X	X
2. Have students increased their ability to enumerate what they feel is important?	X	X	X
3. Have students increased their ability to identify what they like to study and think about; what intellectual skills they have; what study challenges they like?	X	X	X
4. Have students increased their ability to describe their abilities and limitations?	X	X	X
5. Others			
I. B. More clarified set of beliefs and values			
1. Have students increased their ability to describe their own interests and values?	X	X	X
2. Have students increased their ability to identify and describe similarities and differences in values and beliefs between themselves and others?	X	X	X
3. Do students demonstrate a comprehension that self development is the result of interaction between ones interests, beliefs, values and his or her environment?	X	X	X
4. Others			
I. C. More positive attitude towards themselves			

TREATMENT GROUP / OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
1. Have students increased their understanding that self concept can be the result of learning and physical growth?	X	X	X
2. Do students recognize that his or her beliefs and values determine his or her emotional responses?	X	X	X
3. Have students increased their ability to evaluate themselves and make definitive statements which give evidence of accepting and liking themselves?	X	X	X
4. Others			
I. D. Increased interpersonal skills			
1. Have students increased their ability to identify the differences between individual and group roles?	X	X	X
2. Do students demonstrate an increase of understanding of the needs and individuality of others?	X	X	X
3. Have students shown an increase in their ability to apply attending, responding, personalizing and initiating skills?	X	X	X
4. Others			

TREATMENT GROUP / OUTCOME	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
II. A. An expansion of career or occupational awareness	X	X	X
B. An increase in awareness of career information sources	X	X	X
C. The development of information gathering strategies	X	X	X
D. The personalization of career information and experiences.	X	X	X

TREATMENT GROUP OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
II. A. An expansion of career or occupational awareness			
1. Have the students increased their ability to identify a number of alternative occupations?	X	X	X
2. Have the students increased their ability to describe the relationship between an occupational role, its setting, and life style?	X	X	X
3. Others			
II. B. An increase in awareness of career information sources			
1. Have the students increased their ability to identify a variety of types of occupational information?	X	X	X
2. Others			

TREATMENT GROUP OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
II. C. The development of information gathering strategies			
1. Have the students developed an ability to acquire information through interviewing?		X	X
2. Have the students increased their ability to raise questions about occupations that give information important to them?	X	X	X
3. Others			
II. D. The personalization of career information and experiences			
1. Have the students increased their ability to identify occupations which are related to their aptitudes and interests?	X	X	X
2. Have the students increased their abilities to identify the factors that affect their job success, advancement, and mobility?		X	X
3. Others			

TREATMENT GROUP / OUTCOME	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
III. A. The abilities for selection of career or occupational routes		X	X
B. The skills for developing programs for pursuing a career.		X	X

TREATMENT GROUP OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
III. A. The abilities for selection of career or occupational routes			
1. Have the students increased their comprehension of the nature of decision-making?	X	X	X
2. Have the students increased their knowledge of the steps to be taken and the factors to be considered in career planning?	X	X	X
3. Have the students increased the incidence of narrowing down occupational choice to a point of identifying occupational clusters?		X	X
4. Have students increased their ability to determine the potential for future advancement/personal growth in work of their choosing?			
5. Others			
III. B. The skills for developing programs for pursuing a career.			
1. Have the students responded to encouragements to set goals and plan schooling activities for clarification and/or preparation toward their achievement?	X	X	X
2. Have students increased their ability to associate their own abilities and limitations with possible success in their present and future schooling or work?	X	X	X
3. Have students increased their active involvement in career decision-making?		X	X
4. Have students increased their ability to relate their personal interests and values to types of work and associated life styles.		X	X

TREATMENT GROUP / OUTCOME	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL LOCAL DISTRICT 9-12	SENIOR HIGH SCHOOL AREA CENTER 11-12
IV. A. Job acquisition skills		X	X
B. Skills for acquiring occupational openings		X	X
C. Planning skills for career growth.	X	X	X

TREATMENT GROUP OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
IV. A. Job acquisition skills			
1. Have students increased their ability to develop a job list?		X	X
2. Have students demonstrated an ability to develop a total job application?		X	X
3. Have students developed acceptable personal interview skills?	X	X	X
4. Have students increased their abilities to develop valuable educational and work experience information for job getting?		X	X
5. Others			
IV. B. Skills for acquiring occupational openings			
1. Have students increased their ability to identify, locate, and utilize sources that contain information about work?		X	X
2. Have students demonstrated their ability to develop a "job list" with appropriate information?		X	X
3. Others			
IV. C. Planning skills for career growth			
1. Have students increased their ability to identify sources of training and education for work?	X	X	X
2. Have students increased their abilities to relate in-school and out-of-school training programs to career goal achievements?	X	X	X
3. Others			

TREATMENT GROUP / OUTCOME	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
V. A. Job task manipulative skills with the tools and equipment common to a chosen occupational family			X
B. Job task information acquisition and processing skills			X
C. Work organization skills			X
D. Work attitudes and values particular to occupational families	X	X	X
E. Safe work habits			X

TREATMENT GROUP / OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
V. A. Job task manipulative skills with the tools and equipment common to a chosen occupational family			
1. Have students demonstrated an increase in skill achievement in the application of tools and equipment common to a selected occupation?			X
2. Have students increased their skill achievement in the application of tools and equipment common to a family of occupations?			X
3. Have students increased their knowledge of occupational and job standards?			X
4. Others			
B. Job task information acquisition and processing skills			
1. Have students demonstrated an increase in abilities to handle the numerical requirements of their current job training program?			X
2. Have students increased their abilities to handle the numerical prerequisites for continued career or job training program placement?			X
3. Have students increased their level of generally useful numerical skills?			X
4. Have students increased their abilities to handle the communication skills required by the work for which they are training?			X

TREATMENT GROUP / OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
5. Have students increased their abilities to handle the prerequisite communication skills for continued job or career training program placement?			X
6. Have students increased their level of generally useful communication skills?			X
7. Have students increased their level of learning process skills?		X	X
8. Have students increased their level of generally useful problem solving skills?	X	X	X
9. Have students increased their level of generally useful decision-making skills?	X	X	X
10. Others			
C. Work organization skills			
1. Have students demonstrated an increase in skill achievement for programming toward work accomplishments?			X
2. Others			
D. Work attitudes and values particular to occupational families			
1. Have students increased their application of interpersonal skill achievement relative to a chosen occupational family?			X
2. Have students increased their generally useful information regarding worker environments relative to organizations, typical labor/management attitudes, etc.?			X
3. Others			

TREATMENT GROUP / OUTCOME QUESTIONS	JUNIOR HIGH SCHOOL 7-8	SENIOR HIGH SCHOOL	
		LOCAL DISTRICT 9-12	AREA CENTER 11-12
E. Safe work habits			
1. Have students increased their "work safe" skills and understanding?			X
2. Have students increased their "application" of safety skills and understandings?			X
3. Others			

APPENDIX D

Cluster Project
Sept. 1975

PROJECT MANAGEMENT -- MATRIX #2

PROJECT PRODUCTS AND TARGET POPULATIONS

Codes: X^1 - CAVC; X^2 - Local School; X^3 - CISD.

PROJECT PRODUCTS INSTRUCTIONAL	TARGET POPULATIONS INST. AND MGT. SUPPORT SERVICES	INSTRUCTIONAL STAFF	GUIDANCE & COUNSELING	LEARNING RESOURCES	SPECIAL NEEDS	PLACEMENT	ADVISORY COMMITTEE	ADMINISTRATION-MANAGEMENT				
	1. A participatory project staff oriented, organized and interactive -- commitment to project goals and objectives.	$X^{1,2,3}$	$X^{1,3}$	$X^{1,2}$	$X^{1,3}$	$X^{1,2}$	X^{1}	$X^{1,2,3}$				
	2. Recommendations for accommodating project goals derived from assessments made of existing systems for: A. Curriculum	X^{1}		$X^{1,3}$	$X^{1,2}$	$X^{1,2}$	X^{1}	$X^{1,2,3}$				
	B. Instructional & Management Supportive Services	X^{1}	$X^{1,2}$	X^{1}								
3. Commitments to job preparation concepts and program goal outcomes.		X^{1}	$X^{1,2}$		X^{1}	$X^{1,2}$	X^{1}	$X^{1,2,3}$				
4. Student needs assessment.		X^{1}	$X^{1,2}$		$X^{1,2,3}$							
	5. Local/state manpower data analyzed and correlated with training clusters.	X^{1}	$X^{1,2}$		X^{1}	$X^{1,2}$	X^{1}	$X^{1,2}$				
	6. Local school district occupational training program needs analyzed and summarized into position statements.						$X^{1,3}$	$X^{1,2,3}$				
	7. Cluster curriculum development models described.	X^{1}			X^{1}							
	8. Instructional process model described.	X^{1}	$X^{1,2}$	X^{1}	$X^{1,2,3}$	X^{1}	X^{1}	$X^{1,2}$				
9. Occupational Cluster Curriculum Development Model implemented.		X^{1}						X^{1}				
10. Instructional process model implemented.		X^{1}	$X^{1,2}$	X^{1}	$X^{1,2,3}$	X^{1}	X^{1}	$X^{1,2,3}$				

PROJECT PRODUCTS INSTRUCTIONAL	TARGET POPULATIONS INST. AND MGT. SUPPORT SERVICES	INSTRUCTIONAL STAFF	GUIDANCE & COUNSELING	LEARNING RESOURCES	SPECIAL NEEDS	PLACEMENT	ADVISORY COMMITTEE	ADMINISTRATION MANAGEMENT					
11. USOE Clusters modified to CAVC.		X 1	X 1,2	X 1	X 1	X 1	X 1	X 1					
12. CAVC programs classified in a designated cluster.		X 1	X 1,2	X 1	X 1	X 1	X 1	X 1					
13. CAVC job training and occupational hierarchies identified and graphically represented.		X 1	X 1,2	X 1	X 1,2,3	X 1	X 1	X 1					
14. Inventories of cluster performance goals, learner activities, resources and evaluation proposed.		X 1		X 1	X 1,2,3		X 1						
15. Learner modules written and materials readied.		X 1		X 1	X 1	X 1							
16. Individual occupational cluster curriculums implemented.		X 1		X 1	X 1	X 1							
17. Individual occupational cluster curriculum evaluated and recommendations for improvement cited.		X 1	X 1,2	X 1	X 1	X 1	X 1	X 1					
18. Plans for recycling with provisions for implementing improvements.		X 1	X 1,2	X 1	X 1	X 1	X 1	X 1					
	19. Career Development Model, concepts, and behavioral goal outcomes identified.	X 1	X 1,3	X 1	X 1	X 1,2	X 1	X 1,2,3					
20. General student population needs assessment.		X 1,2	X 1,3	X 1,2,3	X 1,2,3	X 1,2,3	X 1,3	X 1,2,3					
21. Commitments for career development concepts and skill development identified.		X 1	X 1,2	X 1,2	X 1	X 1,2	X 1	X 1,2,3					
	22. Career development curriculum building models described.	X 1	X 1,2	X 1	X 1	X 1	X 1	X 1					
23. Inventories of career development performance goals, learner activities, resources and proposed evaluation procedure for career development.		X 1	X 1,2	X 1	X 1	X 1	X 1	X 1					

PROJECT PRODUCTS INSTRUCTIONAL	TARGET POPULATIONS INST. AND MGT. SUPPORT SERVICES	INSTRUCTIONAL STAFF	GUIDANCE & COUNSELING	LEARNING RESOURCES	SPECIAL NEEDS	PLACEMENT	ADVISORY COMMITTEE	ADMINIS.-MANAGEMENT				
24. Career development instructional modules for each cluster developed and implemented.		X 1	X 1,2	X 1	X 1	X 1						
	25. Support Services models developed.											
	A. Student information reporting system -- student, local school, parents, employers.	X 1	X 1,2		X 1	X 1	X 1	X 1,2				
	B. Job and/or advanced training placement assistance.	X 1	X 1,2		X	X 1,2						
	C. Job placement support services model.	X 1	X 1,2	X 1,2	X 1	X 1,2	X 1	X 1,2				
	D. Systems modifications for Special Needs.	X 1	X 1,2	X 1	X 1,2,3	X 1	X 1	X 1				
	26. Student follow-up data collection system.	X 1	X 1,2		X 1	X 1,3	X 1	X 1,2,3				
	27. CAVC cluster career information organized into dissemination system.	X 1	X 1,2	X 1,3	X 1,2,3	X 1,2						
28. Career development testing and evaluation data collected and summarized each cluster.		X 1	X 1,2	X 1	X 1	X 1	X 1	X 1,2,3				
29. Recommendations for improvements cited.		X 1	X 1,2	X 1	X 1,2,3		X 1	X 1,2				
30. Plans for recycling with provisions for implementing improvements.		X 1	X 1,2	X 1,3	X 1,2,3	X 1,2	X 1	X 1,2				

APPENDIX E

PROCEDURES DEMONSTRATING DEVELOPMENT OF

OCCUPATIONAL TRAINING CLUSTERS AND LEARNING MODULES

1. Identify the broad Office of Education Cluster under which your program should be assigned.

2. a. Establish a sub-cluster title which most adequately describes your specific program and enter in the appropriate box on Form A-1.
   b. Below the box write a brief description of the sub-cluster.

3. In the larger box below the sub-cluster and description list the specific titles for which you are and/or could provide training.

4. a. On Form A-2 record your sub-cluster title in the designated rectangle.
   b. Below the title box enter in the separate boxes running across the paper the job titles you identified on Form A-1.

5. On Form A-2 for each job identified record in the box below the job title the tasks performed in fulfilling the job responsibilities. These entries should be numerical codes referring back to previously prepared numbered task listings.

6. Identify the needed understanding of concepts grouped under the label of "content" relative to Communications, Measurements, Information, Science, Mathematics, etc. and record on Worksheet, Form B-1.

7. a. Record your numbered tasks vertically on Form B-2.
   b. Horizontally across the upper right hand corner of the form record the job for which you are providing and/or could provide training. Same as those on Forms A-1 and A-2.

8. On Form B-2 following each task mark an (X) in the box below each job that requires the performance of the task you have identified.

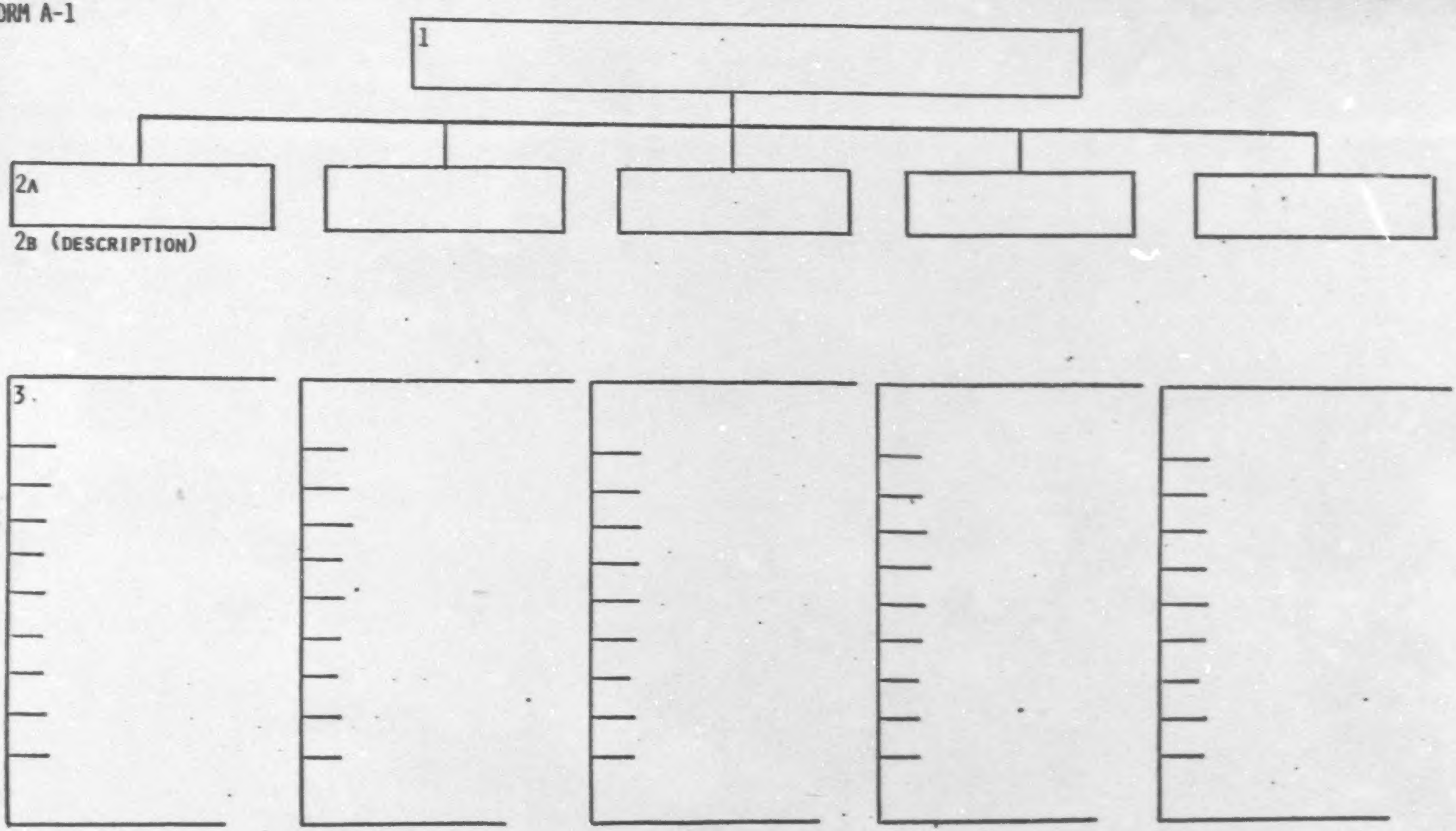
9. Identify on Worksheet Form C the proposed learning modules needed based upon your analysis of tasks and cross referencing with identified jobs. Designate the selected learning modules as 1, 2, 3, 4, etc. and record on Form A-2.

10. For each job identified on Form A-2 record in the job title box the designated letters representing those learning modules required for training.

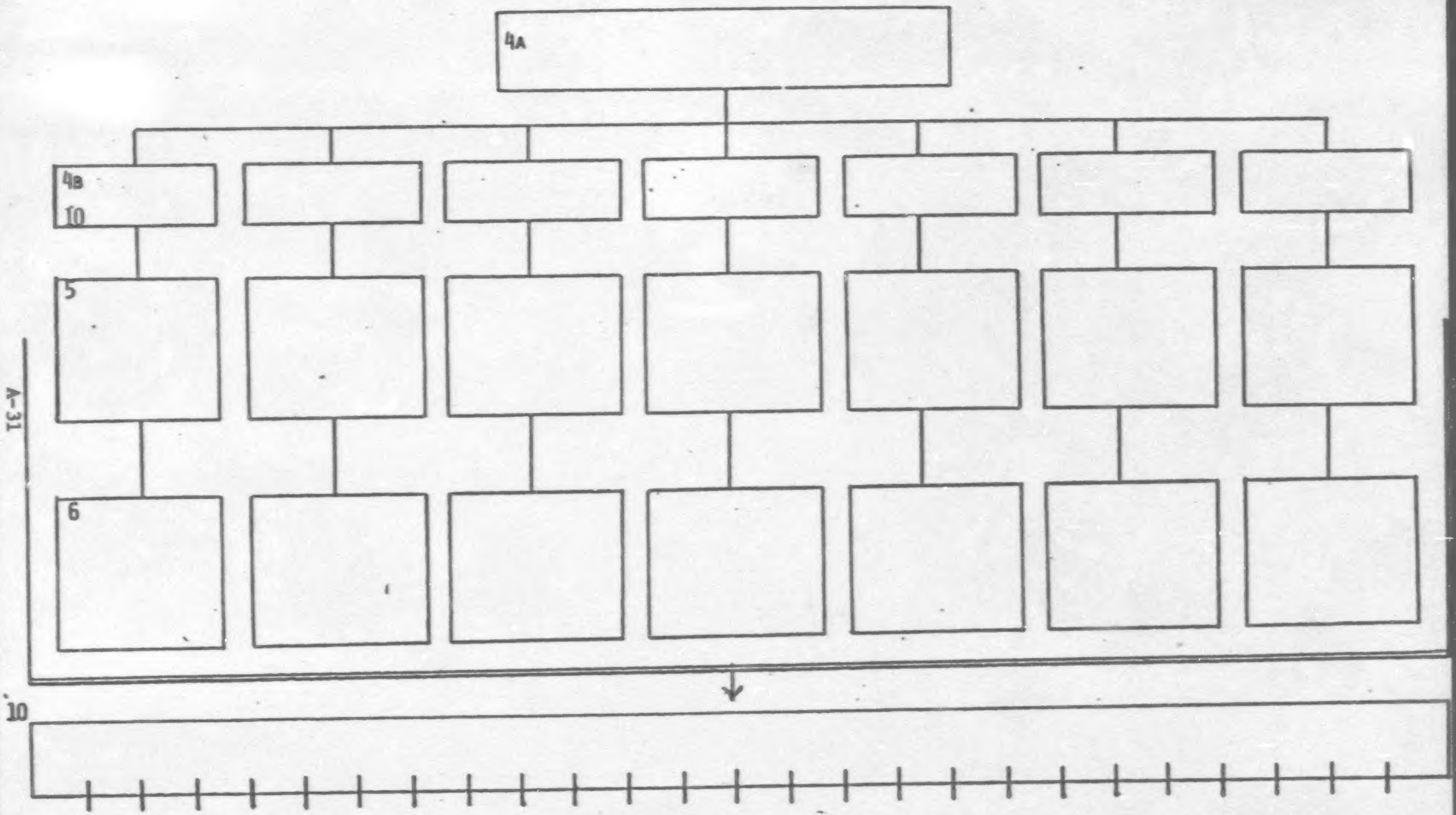
11. Report and compare your work with other members of your broad cluster program development group:
    a. Identify those tasks and learning content you have in common with other instructional managers.
    b. Consider the applicability and feasibility of joint delivery of appropriate learning modules.

12. Continue a developmental effort of data gathering and planning to effect efficient and effective learning delivery systems.

FORM A-1


1
2A
2B (DESCRIPTION)
3.

FORM A-2


4A
4B
10
5
6
10

6.

Tasks describe the work performed by an individual in an occupation and consist of observable behavior. Additional human requirements not as easily observed but which often are necessary to enable the performance of work are grouped under "content." A further outline which might be helpful is as follows:

- COMMUNICATIONS
  - Vocabulary
  - Symbols
  - Drawings and Blueprints
  - Systems and Communication
  - Speech
  - English
  - Map
- MEASUREMENT
  - Time
  - Temperature
  - Weight
  - Volume
  - Length, Width, Depth
  - Meters
  - Instruments
  - Systems of Measurement
- SKILLS
  - Hand
  - Mental
  - Machine
- MATHEMATICS AND SCIENCE
  - Practical and Applied
- INFORMATION
  - Technical
  - Operational
  - Occupational
  - Economic
  - Social
  - Safety
  - Personal Hygiene
  - Personal Standards
  - Occupational and Job Standards

SUBJECT CONTENT COMPRISES
A. Knowledge (facts, concepts, and information details)
B. Attitudinal Factors

COMMUNICATIONS

1.

2.

3.

4.

MEASUREMENT

1.

2.

3.

4.

MATHEMATICS AND SCIENCE

1.

2.

3.

4.

INFORMATION

1.

2.

3.

4.

ATTITUDES

1.

2.

3.

4.

FORM B-2

7B

8

7A

TASKS AND/OR PERFORMANCE OBJECTIVE	JOBS						

ORM C

9.

PROPOSED LEARNING MODULES

NUMBER TITLE

APPENDIX F

SURVEY EVALUATION OF CAVC PROGRAMS

As part of the third party evaluator's on-going assessment and monitoring responsibilities, an examination of a representative sample of written module materials was conducted. These written materials are purported to represent the delivery component of the system. Several methods were used to gather information concerning the developmental progress of those programs.

Along with interview input and observation, a detailed analysis of written programs was conducted. Data gathering scales were designed to rate program components and were used to accurately reflect the current developmental level of each cluster.

Data was gathered on a Program/Cluster Status Report. Not all programs and/or clusters submitted status reports. The program areas assessed are listed below.

- Child Care and Guidance
- Institutional Home Management
- Tailoring
- Electronics
- Commercial Foods
- Stenography-Commercial
- Data Processing
- Floor Covering
- Health Aid Occupations

Program data was gathered in four areas: goals and objectives, needs assessment, delivery system and evaluation. The information collected on goals and objectives was primarily quantitative. That is, the scale noted whether or not the program developer had identified objectives for each of the outcome areas specified in the breakdown of the instructional strands.

The extent to which the written modules incorporated a diagnosis or needs assessment of the students' capability as well as an evaluation of the students' post-module performance was measured on a five-point scale. In brief, this scale qualifies the level of concept development assessed in the course of the module delivery and after delivery. Level 3.0 on this scale is considered minimally effective because it identifies the students understanding of the skill function. Below level 3.0, the evaluation focuses on factual and conceptual learning. Diagnoses and evaluations are rated above 3.0 if they assess the students' capacity to successfully perform the program skill.

Delivery system information was rated on a five-point scale which assesses the utilization of the significant sources of learning. Thus, at level 3.0, the delivery incorporated didactic, modeling and experiential methodology. Above level 3.0, the student is brought through the application and transfer levels of learning.

Several generalizations can be made from a survey of the data collected. These are listed below.

1. Across program and cluster areas, the level to which delivery programs have been developed varies widely. Utilizing CAVC's management model, (plan, develop, implement, evaluate and modify), the developmental level of program materials ranged from the pre-planning stage through the modification stage. Although there was a wide spread of program development within program area, in general, if a program area was relatively well developed, the components were also more thoroughly treated.

2. The implementation and evaluation of the career development components within most programs is considered weakest. Where efforts have been made, the emphasis is greater in self-awareness and career awareness than in decision-making and placement.

3. In general, many of the objectives, as identified in the breakdown of the instructional strands, are addressed in only some of the programs and many are not yet in a form that can be evaluated and/or disseminated.

4. Where the delivery component has been developed, the following observations are considered critical:
    a. In general, the only form of input elicited in the modules is a pre-test or diagnosis. It will be necessary to develop ways to collect input that will enable teachers to meet individual learning styles, sensory preferences and strategies for skill mastery.
    b. The diagnosis and evaluation procedures developed typically include items which are not directly treated in the module and do not include items where content is covered. Thus, there is an incongruence between what is being delivered and the measures of the effectiveness of delivery.
    c. The content of the developed modules is written at levels where considerable breakdown will be necessary for the average student to implement the material easily. In addition, it will be necessary for the instructors to point out the function of the skills to increase generalizability of skill use and to provide the students with ways to assess their own work to increase learning independence and use.
    d. Teaching methodology is considered to be CAVC's strongest and most developed area. Overall, there are didactic, modeling and experiential methodologies utilized in the student involvement phase, albeit of rather limited variety. Further attention needs to be given to the systematic application of the skills to increase the probability they will be transferred.
    e. The learning experiences within which the students acquire and apply the skills are extremely limited in variety. Generally, these experiences move from classroom to shop and are not developed to the level of facilitating skill transition and transfer to life settings.

f. In general, most written modules need to address more reinforcement and management procedures. A greater effort must be made to give reinforcement and to differentiate the reinforcement provided to the students' skill performance in order to encourage and motivate directionful growth. Further, more effort must be made to build in the unique contributions of other CAVC staff, feeder school staff, parents or business and industry as a support system which would significantly help manage, monitor and reinforce student learning.

As noted earlier in this report, CAVC has moved toward filling those missing ingredients. They are obtaining additional input from local personnel as well as planning and conducting training aimed at providing staff with the skills to develop and deliver more effective programs.

AREA Child Care and Guidance

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluatio
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	50% Yes	2.0	X	2.0
B. More Clarified Values	No	X	2.5	1.0
C. More Positive Attitude Towards Self	No	X	2.5	X
D. Increased Interpersonal Skills	Yes	2.0	4.0	2.0
II. Career Awareness				
A. Expanded Occupation Awareness	50% Yes	2.0	2.0	2.0
B. Increased Information Source Awareness	X	2.0	2.5	2.0
C. Develop Information Strategies	50% Yes	2.0	2.5	2.0
D. Personalize Career Information	No	X	1.0	X
III. Decision-Making and Planning				
A. Increased Selection Ability	No	X	X	X
B. Increased Career Planning Skills	25% Yes	2.0	2.0	2.0
IV. Placement				
A. Job Acquisition	Yes	4.0	3.0	4.0
B. Identify Occupation Openings	Yes	4.0	2.0	4.0
C. Planning Career Growth	No	X	X	X
V. Vocational/Technical				
A. Job Task Manipulation Skills	Yes	2.5	4.0	2.5
B. Job Task Information Acquisition	50% Yes	2.0	3.5	2.0
C. Work Originality Skills	Yes	2.5	3.0	2.5
D. Work Attitudes and Values	Yes	3.0	4.0	3.0
E. Safe Work Habits	Yes	2.5	3.0	2.5

X = Not written or not available.

AREA Institutional Home Management

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluation
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	Yes	2.0	4.0	2.0
B. More Clarified Values	Yes	2.0	4.0	2.0
C. More Positive Attitude Towards Self	Yes	2.0	4.0	2.0
D. Increased Interpersonal Skills	Yes	2.0	4.0	2.0
II. Career Awareness				
A. Expanded Occupation Awareness	No	X	2.0	X
B. Increased Information Source Awareness	No	X	4.0	X
C. Develop Information Strategies	No	X	4.0	X
D. Personalize Career Information	No	X	4.0	X
III. Decision-Making and Planning				
A. Increased Selection Ability	Yes	X	X	X
B. Increased Career Planning Skills	Yes	X	X	X
IV. Placement				
A. Job Acquisition	Yes	2.0	4.0	2.0
B. Identify Occupation Openings	Yes	2.0	4.0	2.0
C. Planning Career Growth	Yes	2.0	4.0	2.0
V. Vocational/Technical				
A. Job Task Manipulation Skills	Yes	X	3.5	4.0
B. Job Task Information Acquisition	No	X	3.5	4.0
C. Work Originality Skills	No	X	3.5	4.0
D. Work Attitudes and Values	No	X	3.5	4.0
E. Safe Work Habits	No	X	3.5	4.0

X = Not written or not available.

AREA Tailoring

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluation
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	No	2.0	X	2.0
B. More Clarified Values	No	2.0	X	2.0
C. More Positive Attitude Towards Self	No	2.0	X	2.0
D. Increased Interpersonal Skills	No	2.0	X	2.0
II. Career Awareness				
A. Expanded Occupation Awareness	No	2.0	3.25	2.0
B. Increased Information Source Awareness	No	2.0	3.25	2.0
C. Develop Information Strategies	No	2.0	3.25	2.0
D. Personalize Career Information	No	2.0	3.25	2.0
III. Decision-Making and Planning				
A. Increased Selection Ability	No	2.0	2.5	X
B. Increased Career Planning Skills	No	2.0	2.5	X
IV. Placement				
A. Job Acquisition	No	X	3.0	X
B. Identify Occupation Openings	No	X	3.0	X
C. Planning Career Growth	No	X	3.0	X
V. Vocational/Technical				
A. Job Task Manipulation Skills	No	2.0	2.0	2.0
B. Job Task Information Acquisition	No	2.0	2.0	2.0
C. Work Originality Skills	No	2.0	2.0	2.0
D. Work Attitudes and Values	No	2.0	2.0	2.0
E. Safe Work Habits	No	2.0	2.0	2.0

X = Not written or not available.

AREA Electronics

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluation
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	No	X	X	X
B. More Clarified Values	No	X	X	X
C. More Positive Attitude Towards Self	No	X	X	X
D. Increased Interpersonal Skills	No	X	X	X
II. Career Awareness				
A. Expanded Occupation Awareness	No	X	X	X
B. Increased Information Source Awareness	No	X	X	X
C. Develop Information Strategies	No	X	X	X
D. Personalize Career Information	No	X	X	X
III. Decision-Making and Planning				
A. Increased Selection Ability	No	X	X	X
B. Increased Career Planning Skills	No	X	X	X
IV. Placement				
A. Job Acquisition	No	X	X	X
B. Identify Occupation Openings	No	X	X	X
C. Planning Career Growth	No	X	X	X
V. Vocational/Technical				
A. Job Task Manipulation Skills	Yes	X	2,5	2.5
B. Job Task Information Acquisition	No	X	X	X
C. Work Originality Skills	No	X	X	X
D. Work Attitudes and Values	No	X	X	X
E. Safe Work Habits	No	X	X	X

X = Not written or not available.

AREA Commercial Food

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluation
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	No	X	X	X
B. More Clarified Values	No	X	X	X
C. More Positive Attitude Towards Self	No	X	X	X
D. Increased Interpersonal Skills	No	X	X	X
II. Career Awareness				
A. Expanded Occupation Awareness	No	X	X	X
B. Increased Information Source Awareness	No	X	X	X
C. Develop Information Strategies	No	X	X	X
D. Personalize Career Information	No	X	X	X
III. Decision-Making and Planning				
A. Increased Selection Ability	No	X	X	X
B. Increased Career Planning Skills	No	X	X	X
IV. Placement				
A. Job Acquisition	No	X	X	X
B. Identify Occupation Openings	No	X	X	X
C. Planning Career Growth	No	X	X	X
V. Vocational/Technical				
A. Job Task Manipulation Skills	Yes	4.0	2.0	4.0
B. Job Task Information Acquisition	50% Yes	X	2.0	3.0
C. Work Originality Skills	Yes	X	2.0	X
D. Work Attitudes and Values	No	X	2.0	X
E. Safe Work Habits	No	X	X	X

X = Not written or not available.

AREA Stenography - Commercial

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluation
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	Yes	2.0	2.0	2.0
B. More Clarified Values	No	2.0	2.0	2.0
C. More Positive Attitude Towards Self	No	2.0	2.0	2.0
D. Increased Interpersonal Skills	No	2.0	2.0	2.0
II. Career Awareness				
A. Expanded Occupation Awareness	No	2.0	2.0	2.0
B. Increased Information Source Awareness	No	2.0	2.0	2.0
C. Develop Information Strategies	No	2.0	2.0	2.0
D. Personalize Career Information	No	2.0	2.0	2.0
III. Decision-Making and Planning				
A. Increased Selection Ability	No	X	X	X
B. Increased Career Planning Skills	No	2.0	2.5	2.0
IV. Placement				
A. Job Acquisition	Yes	X	2.5	2.0
B. Identify Occupation Openings	Yes	X	2.5	2.0
C. Planning Career Growth	Yes	X	2.5	2.0
V. Vocational/Technical				
A. Job Task Manipulation Skills	Yes	2.0	2.5	2.0
B. Job Task Information Acquisition	Yes	2.0	2.5	2.0
C. Work Originality Skills	Yes	2.0	2.5	2.0
D. Work Attitudes and Values	Yes	2.0	2.5	2.0
E. Safe Work Habits	Yes	2.0	2.5	2.0

X = Not written or not available.

AREA Data Processing

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluatio
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	Yes	2.0	2.0	2.0
B. More Clarified Values	Yes	2.0	2.0	2.0
C. More Positive Attitude Towards Self	75% Yes	X	X	X
D. Increased Interpersonal Skills	75% Yes	X	X	X
II. Career Awareness				
A. Expanded Occupation Awareness	Yes	2.0	2.0	2.0
B. Increased Information Source Awareness	No	X	2.25	X
C. Develop Information Strategies	No	X	2.25	X
D. Personalize Career Information	No	X	2.25	X
III. Decision-Making and Planning				
A. Increased Selection Ability	Yes	X	1.75	X
B. Increased Career Planning Skills	Yes	X	1.75	X
IV. Placement				
A. Job Acquisition	Yes	2.0	2.5	2.0
B. Identify Occupation Openings	Yes	2.0	2.5	2.0
C. Planning Career Growth	Yes	2.0	2.5	2.0
V. Vocational/Technical				
A. Job Task Manipulation Skills	Yes	4.0	3.0	4.0
B. Job Task Information Acquisition	Yes	X	X	X
C. Work Originality Skills	Yes	2.0	3.0	2.0
D. Work Attitudes and Values	No	X	X	X
E. Safe Work Habits	No	X	X	X

X = Not written or not available.

AREA Floor Covering

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluation
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	No	X	X	X
B. More Clarified Values	No	X	X	X
C. More Positive Attitude Towards Self	No	X	X	X
D. Increased Interpersonal Skills	No	X	X	X
II. Career Awareness				
A. Expanded Occupation Awareness	No	X	X	X
B. Increased Information Source Awareness	No	X	X	X
C. Develop Information Strategies	No	X	X	X
D. Personalize Career Information	No	X	X	X
III. Decision-Making and Planning				
A. Increased Selection Ability	No	X	X	X
B. Increased Career Planning Skills	No	X	X	X
IV. Placement				
A. Job Acquisition	No	X	X	X
B. Identify Occupation Openings	No	X	X	X
C. Planning Career Growth	No	X	X	X
V. Vocational/Technical				
A. Job Task Manipulation Skills	Yes	X	3.0	4.0
B. Job Task Information Acquisition	No	X	1.5	X
C. Work Originality Skills	X	X	X	X
D. Work Attitudes and Values	X	X	X	X
E. Safe Work Habits	X	X	X	X

X = Not written or not available.

AREA Health Aid Occupations

OUTCOME OBJECTIVE	Goals & Objectives	Diagnosis	Delivery	Evaluatio
I. Self-Awareness				
A. Increased P.I.E. Self-Awareness	Yes	2.0	3.0	2.0
B. More Clarified Values	50% Yes	2.0	3.0	2.0
C. More Positive Attitude Towards Self	No	2.0	3.0	2.0
D. Increased Interpersonal Skills	No	2.0	3.0	2.0
II. Career Awareness				
A. Expanded Occupation Awareness	Yes	X	3.0	2.0
B. Increased Information Source Awareness	Yes	X	3.0	2.0
C. Develop Information Strategies	Yes	X	3.0	2.0
D. Personalize Career Information	Yes	X	3.0	2.0
III. Decision-Making and Planning				
A. Increased Selection Ability	Yes	X	3.0	2.5
B. Increased Career Planning Skills	Yes	X	3.0	2.5
IV. Placement				
A. Job Acquisition	Yes	2.0	3.0	2.0
B. Identify Occupation Openings	Yes	2.0	3.0	2.0
C. Planning Career Growth	Yes	2.0	3.0	2.0
V. Vocational/Technical				
A. Job Task Manipulation Skills	Yes	3.5	4.0	3.5
B. Job Task Information Acquisition	Yes	2.5	4.0	X
C. Work Originality Skills	Yes	2.0	3.0	2.0
D. Work Attitudes and Values	Yes	4.0	1.0	4.0
E. Safe Work Habits	Yes	4.0	3.0	4.0

X = Not written or not available.

APPENDIX G

April 14, 1976

MEMORANDUM

TO: Nate Avani
Dick Brown
Woody Bowers
Richard Glass
Barb Rupp
Fran Oldham
Pat Egan
Fred Robinson
Doug Voshell
Jim Loser

FROM: Harry Miller

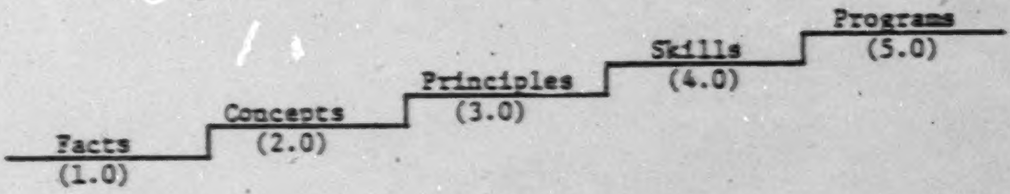
RE: Follow-Up Training Sessions

Curriculum Content and Delivery Skills training at a minimum will require several training sessions to get all of the pieces that will eventually include a total curriculum development skills package. To date, you have received training in:

(1) Mission Through Steps — a content organizational model.

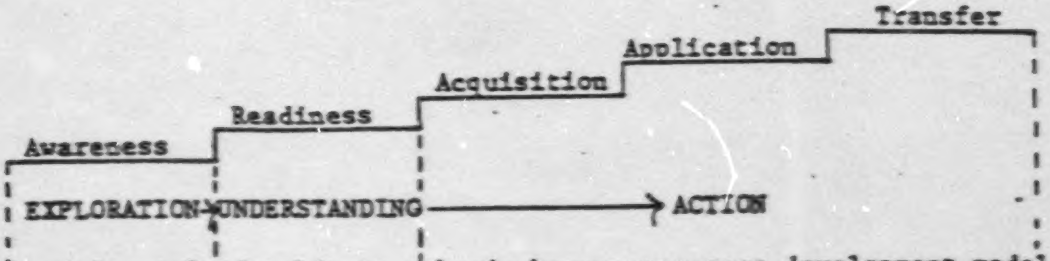
Mission
Goals
Objectives
Tasks
Steps

(2) Facts Through Programs Scale Model — an approach which describes knowledge in terms of level of usefulness.



(3) A Show-Tell-Do Method of delivery and detailed skills for applying this method to the Skills Level (4.0) of Facts through Programs scale.

(4) An organizational scheme classifying the level of curriculum content in terms of:



and its relationship to a basic human resources development model.

(5) Situational Learning Experience Exercises to motivate and bring the student into the learning experience.

Our assignment between now and when our trainer returns for our next training session, May 17th through May 21st, is to set up our own models of these pieces using materials and situations from our own program areas. You should be cautioned against attempting to take any one of these pieces and applying it across the board in an effort to enact a completed curriculum product at this time. It would appear to be a better use of time and energies to take each piece and make application and transfer of it to insure that you possess the principles and skills.

In regard to this, each of you have made a commitment to at least two assignments. The first was to make application of the Facts through Programs Scale. The second was setting up and actually trying out in the classroom a Show-Tell-Do lesson.

The amount of work accomplished between now and May 17th is really an individual thing. The minimum goal should be that we clearly demonstrate through visible behaviors and written materials that we can indeed apply the skills. Accomplishing this goal prior to the 17th then allows the trainer to move to the other pieces which make up the teaching delivery.

You should feel free to seek help from one another and members of the administrative support team. At the same time, you will need to remember each of us are learners. This training is classified as that which we described in the Cluster Project Proposal as "some new things that we will need to learn". With this in mind, we may not be as good at "helping" as you'd like us to be at this particular time. Hopefully, this admission will not be used as an excuse for not checking out our growth with one another.

I shall set up one or two periods of time between now and the 17th wherein we can on a small group basis meet to clarify issues and check our progress. This should not preclude your taking the initiative in setting up individual conferences as you see fit.

HM/lo
cc: C. Jump
B. Harberts

April 13, 1976

MEMORANDUM

TO:

Amy Williams
Bill Young
Hugh Collie
Cheryl Costley
Bob McAlear
Neil Cornstubble
George Streeter
Mary Lou Weddle
Dale Schoonard
Mike Skartsiaris
Bob Harberts
Lanny Johnston
Wayne Booten

FROM: Harry Miller

RE: Follow-Up of Training Sessions

Curriculum Content and Delivery Skills training at a minimum will require several training sessions to get all of the pieces that will eventually include a total curriculum development skills package. To date, you have received training in:

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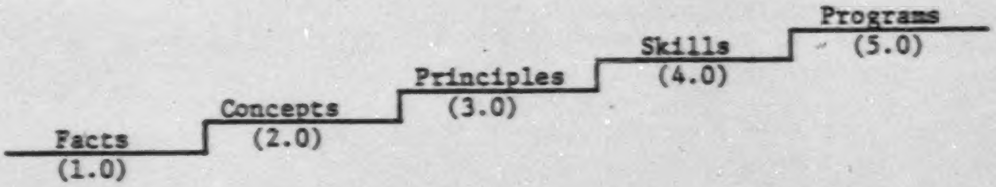
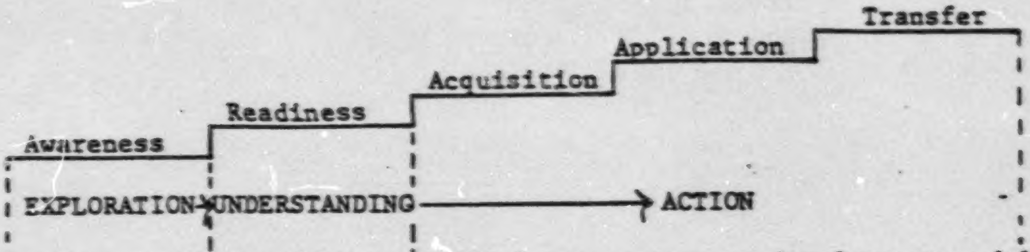


(3) A Show-Tell-Do Method of delivery and detailed skills for applying this method to the Skills Level (4.0) of Facts through Programs scale.

(4) An organizational scheme classifying the level of curriculum content in terms of:



and its relationship to a basic human resources development model.

(5) Situational Learning Experience Exercises to motivate and bring the student into the learning experience.

Our assignment between now and when our trainer returns for our next training session, May 17th through May 21st, is to set up our own models of these pieces using materials and situations from our own program areas. You should be cautioned against attempting to take any one of these pieces and applying it across the board in an effort to enact a completed curriculum product at this time. It would appear to be a better use of time and energies to take each piece and make application and transfer of it to insure that you possess the principles and skills.

In regard to this, each of you have made a commitment to at least two assignments. The first was to make application of the Facts through Programs Scale. The second was setting up and actually trying out in the classroom a Show-Tell-Do lesson.

A third assignment that should be considered is to make an initial application of the Mission through Steps organizational model. You should attempt to organize enough of your program content in accordance with this model to begin to get a good feel for how it works. Keep in mind that in using this model, there is an adjustment feature when you apply the principle that if the content is broken down small enough so that most students can do it, then you have designated "steps". A second principle is that if you read the columns of goals through steps down or up and the content in each column reads generally as equivalent in scope, then you likely have your content identified appropriately as to goals, objectives, tasks, or steps. A third check is if you read your content layout from left to right (Steps through Missions) and it grows increasingly in breadth of statement or from very specific to general statements, then you have likely identified your content appropriately as to steps through the mission.

The amount of work accomplished between now and May 17th is really an individual thing. The minimum goal should be that we clearly demonstrate through visible behaviors and written materials that we can indeed apply the skills. Accomplishing this goal prior to the 17th then allows the trainer to move to the other pieces which make up the teaching delivery.

You should feel free to seek help from one another and members of the administrative support team. At the same time, you will need to remember each of us are learners. This training is classified as that which we described in the Cluster Project Proposal as "some new things that we will need to learn". With this in mind, we may not be as good at "helping" as you'd like us to be at this particular time. Hopefully, this admission will not be used as an excuse for not checking out our growth with one another.

I shall set up one or two periods of time between now and the 17th wherein we can on a small group basis meet to clarify issues and check our progress. This should not preclude your taking the initiative in setting up individual conferences as you see fit.

HM/lo
cc: C. Jump

June 22, 1976

MEMORANDUM

TO: Vo/Tech and Career Development Training Groups

FROM: Harry Miller

RE: Follow-up of Training Sessions

The June 14-18 curriculum development training session provided a review of previously introduced curriculum development skill and expanded upon those skill pieces previously introduced.

The review highlighted the mission through steps (skills) content organizational model and the "check list" for developing instructional modules.

Those previously introduced pieces which were expanded upon dealt with input and diagnosis from the standpoints of what the student thinks he/she can do, know, and feel; what the student really can do, knows, and feels; and what the student wants to be able to do, know and feel. A diagnosis checksheet matrix was illustrated for purposes of organizing diagnostic data relative to discriminations and actions in terms of quantity and quality. These expanded pieces were added to the "check list" for developing modules.

Other skill pieces followed-up had to do with "goal setting" and "sequencing". These topics will need to be expanded more in subsequent training sessions.

The goal of this and previous curriculum development training sessions has been to prepare you to improve upon your existing curriculum and to write new curricula. The curriculum development tasks for many of you have been represented in a curriculum development performance contract. Others will have an opportunity to assume similar assignments. You should feel free to discuss these assignments with the Center Director and/or the Cluster Project Director.

HM/lo

June 22, 1976

MEMORANDUM

TO: Interpersonal Skills — Skills of Teaching Group

FROM: Harry Miller

RE: Follow-Up Training Session

The June 9-12 training session in the Skills of Teaching introduced eight basic skill areas critical to effective teaching. Additional training is scheduled in August prior to the start of school. Also, short term training sessions will be provided during the course of the 1976-77 school year to reinforce the basic skills and to introduce more advanced work.

These basic skills are applicable to dealing with people generally and thus we have many opportunities to practice them during the summer in our family, community and work setting. Recall we discussed during the training week that it was important to discipline ourselves to make application of the skills immediately so that we'd be more ready to use them in the classroom in the Fall. Further, it is an important contribution toward being prepared to move towards more advanced skills as early as possible next year.

A summary sheet outlining the major components of the basic skills introduced to date is attached as a helpful reminder. Looking towards future training sessions we expect to improve our skills in personalizing responses, initiating with learners relative to goal setting, and preparing step-by-step programs to achieve goals. These skills become critical in efforts to link the students up with the curriculum goals of our programs.

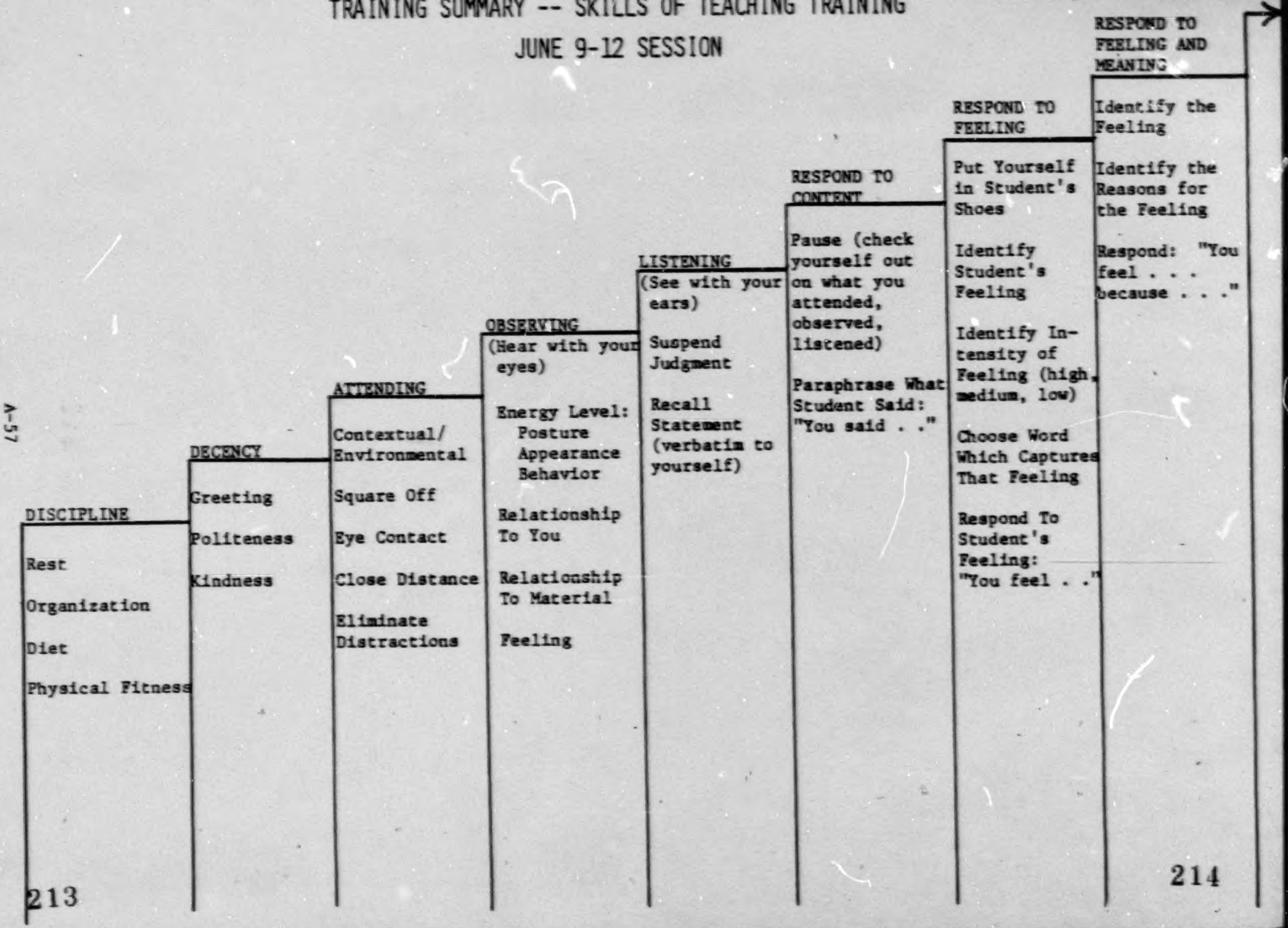
Each of us have some concerns about our abilities to acquire and apply the skills as well as we'd like. If I think I can't, should I even try? Our goal is to be more effective educators. The "skills of teaching" move us closer to the goal. Regardless of the distance we must travel, whether measured in this initial effort as one step or ten, it's growth and improvement and worth the doing.

Should you want to move ahead in your reading, we now have a handbook, "The Art of Helping" which you can check out with Linda from the Program Development Office.

HM/lo
Attachment

TRAINING SUMMARY -- SKILLS OF TEACHING TRAINING

JUNE 9-12 SESSION



DISCIPLINE

- Rest
- Organization
- Diet
- Physical Fitness

DECENCY

- Greeting
- Politeness
- Kindness

ATTENDING

- Contextual/ Environmental
- Square Off
- Eye Contact
- Close Distance
- Eliminate Distractions

OBSERVING
(Hear with your eyes)

- Energy Level:
  - Posture
  - Appearance
  - Behavior
- Relationship To You
- Relationship To Material
- Feeling

LISTENING
(See with your ears)

- Suspend Judgment
- Recall Statement (verbatim to yourself)

RESPOND TO CONTENT

- Pause (check yourself out on what you attended, observed, listened)
- Paraphrase What Student Said: "You said . ."

RESPOND TO FEELING

- Put Yourself in Student's Shoes
- Identify Student's Feeling
- Identify Intensity of Feeling (high, medium, low)
- Choose Word Which Captures That Feeling
- Respond To Student's Feeling: "You feel . ."

RESPOND TO FEELING AND MEANING

- Identify the Feeling
- Identify the Reasons for the Feeling
- Respond: "You feel . . . because . . ."

May 27, 1976

MEMORANDUM

TO:
Amy Williams
Julie Shaver
Fred Robinson
Lanny Johnston
Dale Schoonard
Mike Skartsiaris
Wayne Booton
Cheryl Costley
Mary Lou Weddle
Barb Rupp
Fran Oldham
Dick Glass
Dick Brown
Nate Avani
Hugh Collie
George Streeter
Woody Bowers
Neil Cornstubble
Doug Voshell
Pat Egan
Bill Young
Bob McAlear

FROM: Harry Miller

RE: Follow-Up of Training Sessions

The May 17-21 training session introduced additional curriculum development components. These new pieces were:

6. LEARNER INPUT CONTENT DEVELOPMENT AND DIAGNOSIS — Teacher application of Attending, Listening, Observing and Responding Skills; Student input data and teacher pre-test data (do, know and feel).

7. TEACHING ORGANIZATION — ROPES Method, Review, Overview, Presentation, Exercise, and Summary.

8. LEARNING MANAGEMENT SYSTEM — Identification and review of components of a lesson and a checklist for preparing modules.

9. PROVISIONS FOR MONITORING, EVALUATION AND FEEDBACK.

10. GOAL SETTING AND SEQUENCING — Personalization of curriculum to student needs based upon student input and diagnosis.

The latter two pieces, items 9 and 10, will be detailed in further training sessions. Preceding sessions handled the following pieces:

1. MISSION THROUGH STEPS — A content organization model.

2. FACTS THROUGH PROGRAMS SCALE MODEL — An approach which describes knowledge in terms of levels of usefulness [Facts (1.0), Concepts (2.0), Principles (3.0), Skills (4.0), Programs (5.0)].

3. A SHOW-TELL-DO METHOD OF DELIVERY.

4. AN ORGANIZATIONAL SCHEME classifying the level of curriculum content in terms of Awareness, Readiness, Acquisition, Application and Transfer.

5. SITUATIONAL LEARNING EXPERIENCE EXERCISES to motivate and bring the student into the learning experience.

Our goal assignments between now and when our trainer returns June 14th for the next training session are:

A. Make application of the Mission through Steps model by outlining as much of your curriculum content as you can in accordance with this model.

B. Apply what you have learned relative to the content development models:
   a. Mission Through Steps,
   b. Facts through Programs,
   c. Input Model - Student input and teacher diagnosis;
   the teaching organization and delivery models:
   a. Show, Tell, Do
   b. ROPES (Review, Overview, Presentation, Exercises and Summary);
   and provisions for monitoring, evaluation and feedback by writing a lesson or model in which you demonstrate the application of as many of these skills as you can.

The development of the "Check List" for Preparing a Module accomplished during the training session summarizes the curriculum pieces covered to date and should be used as a handy guide to check yourself out as you prepare your lesson.

It should again be noted that inability to apply all of the pieces as well as you would like is not an excuse for exempting yourself from the assignment. Putting down what you can do clarifies where you are at and will help the trainer to personalize continuing training goals with you.

The training goal by the end of our June session will be to equip the participants to organize their overall curriculum content and to write improved instructional delivery modules for implementation during the 1976-77 school year.

Provisions have been made for continuing learning reinforcement and advanced skill training during the next school year.

The Interpersonal Skills training received in the past and/or scheduled for June 9th through the 12th is not to be viewed as separate from the curriculum delivery skills acquisition and application, but rather as an integral part of curriculum training. Provisions also have been made to reinforce the interpersonal skills training in the Fall and during the next school year and to monitor its application as part of the instructional delivery.

You are encouraged to seek assistance from the Program Development Office and/or other participants in the training group. A helpful step might be to clarify your notes with other members of the training group.

HM/lo
Attachments

APPENDIX H

CAVC CAREER DEVELOPMENT SURVEY

Form 1
(1)

Name ______________________________ (2) Home School ______________________________ (3)

CAVC Program ____________________ Date __________ (5) CAVC Instructor ______________________________ (6) (7)

Home School Counselor ______________________________ CAVC Counselor ______________________________ (8)

	Female	Male		Junior	Senior
I am a (Circle one) (9)	1	2	I am a (Circle one) (10)	1	2

This semester your program added some new material. The new material was added to help you learn more about yourself and to help you plan your career after high school.

We want to know how well the career material helped you. We want to know how we can make it better. This survey will ask you some questions. Please read each one carefully. Then, answer the questions honestly. THIS IS NOT A TEST. But it will tell us what we must do to better help you learn about yourself and plan your career after high school.

After you finish high school, what are your plans? (Circle one) (11)

1. I am not sure just what I will do.
2. I plan to get a job.
3. I plan to go to a 2-year school.
4. I plan to go to a 4-year school.
5. I have plans other than a job or schools.

Instructions

To make sure you find the right job or school, the most important things you need to know are:

- about yourself
- about jobs or schools
- how to choose the best job or school for you
- how to get accepted by a job or school
- how to do what the job or school demands from you.

Before you started your CAVC program, you knew some of these things. And you learned more about these things from your home school, your parents, and friends. What we want to know is how much of what you know did you learn directly from this program.

Read each item on the following pages.

Use the scale on the right of each item to show how much the CAVC program you listed on page 1 taught you about the item.

Knowing about Yourself

	In these areas:	My CAVC program:	This item was not taught.	Taught me nothing new.	Taught me a few new things.	Taught me many new things.	Taught me a great many new things.
(12) 1.	Knowing what kinds of work interests me.		1	2	3	4	5
(13) 2.	Knowing what kinds of work I can do well.		1	2	3	4	5
(14) 3.	Knowing what my attitudes are toward work.		1	2	3	4	5
(15) 4.	Knowing what is important to me in choosing a job.		1	2	3	4	5
(16) 5.	Knowing that I can find the type of work that will be rewarding for me.		1	2	3	4	5
(17) 6.	Knowing if I have the ability to meet the entry requirements of the job or school I want.		1	2	3	4	5

Knowing about Yourself (Continued)

In these areas:	Very uncertain of myself.	Uncertain of myself.	Certain of myself.	Very certain of myself.
(18) 7. Overall, how well did you know yourself in relationship to the world of work before you took this program? (Circle one)	1	2	3	4

	Much less certain of myself.	Less certain of myself.	The same as I was.	More certain of myself.	Much mor certain of mysel
(19) 3. Overall, how well do you know yourself in relationship to the world of work now, because of this program? (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very important.
(20) 9. When planning your career, how important is it to you to know yourself in relationship to the world of work?	1	2	3	4

Knowing about Jobs or Schools

	In these areas:	My CAVC program: This item was not taught.	Taught me nothing new.	Taught me a few new things.	Taught me many new things.	Taught me a great many new things.
(21) 1.	Knowing how academic courses I took relate to the work I think I might do.	1	2	3	4	5
(22) 2.	Knowing how the vocational skills I am learning relate to the work I think I might do.	1	2	3	4	5
(23) 3.	Knowing how to tell how jobs are similar and how they are different.	1	2	3	4	5
(24) 4.	Knowing how my job will affect the way I live my life.	1	2	3	4	5
(25) 5.	Knowing what jobs my program is preparing me to enter.	1	2	3	4	5
(26) 6.	Knowing the working conditions in which I will perform my job.	1	2	3	4	5
(27) 7.	Knowing where to find information about jobs.	1	2	3	4	5
(28) 8.	Knowing what questions I need to ask to get the information I need to choose a job.	1	2	3	4	5
(29) 9.	Knowing what jobs meet my interests.	1	2	3	4	5
(30) 10.	Knowing what employers expect of employees.	1	2	3	4	5

Knowing about Jobs or Schools (Continued)

In these areas:	Nothing.	A little.	Some.	A lot.
31) 11. Overall, how much did you know about jobs or schools you could choose before you took this program? (Circle one)	1	2	3	4

	I am much more confused.	I am more confused.	I know no more than before.	I know some more.	I know a lot more.
32) 12. Overall, how much more do you know about jobs or schools you can choose because of taking this program? (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very important.
33) 13. When planning your career, how important is it to you to know about jobs or schools you can choose? (Circle one)	1	2	3	4

Knowing How to Make Career Plans and to Choose the Best Job or School for You

In these areas:	My CAVC program:	This item was not taught.	Taught me nothing new.	Taught me a few new things.	Taught me many new things.	Taught me a great man new things
(34) 1. Knowing how to choose an occupation.		1	2	3	4	5
(35) 2. Knowing how to develop a plan to reach my occupational goals.		1	2	3	4	5
(36) 3. Knowing the supply and demand situation for my job.		1	2	3	4	5
(37) 4. Knowing where I can go for further training in my field of work.		1	2	3	4	5
(38) 5. Knowing my job goal.		1	2	3	4	5
(39) 6. Knowing what plan to follow to get to my job goal.		1	2	3	4	5
(40) 7. Knowing how to use personal values and interests to choose a job.		1	2	3	4	5
(41) 8. Knowing the requirements of the job(s) in which I am interested.		1	2	3	4	5
(42) 9. Knowing how to evaluate job offers.		1	2	3	4	5

Knowing How to Make Career Plans and to Choose the Best Job or School for You (Continued)

In these areas:

	Very bad.	Bad.	Good.	Very good.
43) 10. Overall, how good were you at making choices about jobs or schools before you took this program? Before the course I was . . . (Circle one)	1	2	3	4

	I am much more confused.	I am more confused.	I am the same as before.	I am somewhat better.	I am a lot better.
44) 11. Overall, how good are you at making choices about jobs or schools now, because of taking this program? Because of the course I am . . . (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very important.
45) 12. When planning your career, how important is it to you to have the skills to choose jobs or schools that best meet your needs? (Circle one)	1	2	3	4

Knowing How to Get Accepted by an Employer or a School

		In these areas:	My CAVC program:	This item was not taught.	Taught me nothing new.	Taught me a few new things.	Taught me many new things.	Taught me a great many new things.
(46)	1.	Knowing how to talk and act with interviewers.		1	2	3	4	5
(47)	2.	Knowing how to talk and act with people on the job.		1	2	3	4	5
(48)	3.	Knowing the things which will affect my success on the job.		1	2	3	4	5
(49)	4.	Knowing the sources that can be used to develop a list of places where I could be employed.		1	2	3	4	5
(50)	5.	Knowing how to actually use the job sources to help me develop my places of possible employment.		1	2	3	4	5
(51)	6.	Knowing how to make out a job application.		1	2	3	4	5
(52)	7.	Knowing the assets I have to offer to an employer.		1	2	3	4	5
(53)	8.	Knowing how to prepare for an interview.		1	2	3	4	5
(54)	9.	Knowing the questions I will have to answer in an interview and how to answer them.		1	2	3	4	5
(55)	10.	Knowing how to evaluate jobs advertised in the want-ads.		1	2	3	4	5

Knowing How to Get Accepted by an Employer or a School (Continued)

In these areas:	My CAVC program: This item was not taught.	Taught me nothing new.	Taught me a few new things.	Taught me many new things.	Taught me a great many new things.
(56) 11. Knowing how to request an interview by phone.	1	2	3	4	5
(57) 12. Knowing how to request an interview by letter.	1	2	3	4	5
(58) 13. Knowing how to write a resume.	1	2	3	4	5
(59) 14. Knowing how to terminate a job.	1	2	3	4	5

	Nothing.	A little.	Some.	A lot.
(60) 15. Overall, how much did you know about placing yourself in a job or school before you took this program? Before the course, I knew . . . (Circle one)	1	2	3	4

	I am much more confused than before.	I am more confused than before.	I know no more than before.	I know some more than before.	I know a lot more than before.
(61) 16. Overall, how much more do you know about placing yourself now, because of taking this program? (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very important.
(62) 17. When planning your career, how important is it to you to have	1	2	3	4

Knowing How to Perform the Skills Your Job or School Requires

	In these areas:	My CAVC program:	This item was not taught.	Taught me nothing new.	Taught me a few new things.	Taught me many new things.	Taught me a great many new things.
(63) 1.	Knowing how to use the tools and equipment required of the job to which my program leads.		1	2	3	4	5
(64) 2.	Knowing how to do the math required by the job I want.		1	2	3	4	5
(65) 3.	Knowing how to read the things I have to read on the job I want.		1	2	3	4	5
(66) 4.	Knowing how to write well enough to handle the job I want.		1	2	3	4	5
(67) 5.	Knowing how to make the decisions required by the job I want.		1	2	3	4	5
(68) 6.	Knowing how to set a work goal and lay out all the steps needed to reach that goal.		1	2	3	4	5
(69) 7.	Knowing the procedure which needs to be followed in order to assure safety on the job.		1	2	3	4	5

Knowing How to Perform the Skills Your Job or School Requires (Continued)

In these areas:	Not do these skills.	Do a few of these skills.	Do some of the skills.	Do almost all of the skills.
(70) 8. Overall, how well could you do the skills your course taught, before you took the program? Before the course I could . . . (Circle one)	1	2	3	4

	I am much more confused than before.	I am more confused than before.	I am the same as before.	I am better than before.	I am much better than before
(71) 9. Overall, how well can you do the skills your course taught, now, because of taking the program? Because of the course, I can do the skills . . . (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very important.
(72) 10. When planning your career, how important is it to you to be able to do the skills required by the job or school you choose? (Circle one)	1	2	3	4

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APPENDIX I

CAVC CAREER DEVELOPMENT SURVEY

Form 2
(1)

Name____________________________(2) Home School________________________(3)

CAVC Program______________________(4) Date________________________________(5)

CAVC Instructor____(6)______(7)

Home School
Counselor____________________________ CAVC Counselor___________________________(8)

I am a: (Circle One) (9)
1 Female
2 Male

I am a: (Circle One) (10)
1 Junior
2 Senior

This semester your program added some new material. The new material was added to help you learn more about yourself and to help you plan your career after high school.

We want to know how well the career material helped you. We want to know how we can make it better. This survey will ask you some questions. Please read each one carefully. Then, answer the questions honestly. THIS IS NOT A TEST. But it will tell us what we must do to better help you learn about yourself and plan your career after high school.

After you finish high school, what are your plans? (Circle One)

(11) 1. I am not sure just what I will do.

2. I plan to get a job.

3. I plan to go to a 2-year school.

4. I plan to go to a 4-year school.

5. I have plans other than a job or school.

(12) 1. What jobs will the program you listed on page 1 prepare you to enter directly from high school?

____________________ ____________________

____________________ ____________________

____________________ ____________________

____________________ ____________________

____________________ ____________________

(13) 2. What related jobs will your program prepare you for that require more than high school training to enter?

____________________ ____________________

____________________ ____________________

____________________ ____________________

____________________ ____________________

____________________ ____________________

3. a) List the name of the job for which your program is preparing you that you know the most about.

Job Name________________________________

b) For each area below, list the 3 most important things for you to consider in evaluating whether the job is really for you.

(14) 1) Things to Consider About Working Conditions (e.g., what the noise level is, or whether I work as part of a team).

____

____

____

(15) 2) Things to Consider About Benefits (e.g., if there is a health insurance plan).

____

____

____

(16) 3) Things to Consider About Activities You Perform On the Job (e.g., variety of welds I get to do or how much I get to travel on the job).

____

____

____

(17) 4) Things to Consider About Job Requirements (e.g., will I need more schooling to advance).

____

____

____

(18) c) Take the one thing that is most important to you in each of the above areas (working conditions, benefits, activities, requirements) and describe how well the job measures up on these four things and why.

AREA	MOST IMPORTANT THING	HOW WELL JOB MEASURES UP (Good, O.K., or Bad)	WHY DID YOU EVALUATE IT THIS WAY
Working Conditions (EXAMPLE):	(Working where its quite).	(Bad)	(Because at least three quarters of the time I will work where it is noisy).
19) Benefits			
20) Activities			
21) Requirements			

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4. List the job that your vocational program is preparing you for that you like best.

Job Name____

Now please evaluate yourself in terms of your ability to perform this job. Follow these steps: Put your answers on the next page.

a) List one thing you are required to do on your job.

Example: Step a) (List thing to do)
Style hair.

b) Define the requirement you must do on your job. (Defining means describing the requirement in such a way that someone else could tell if you were meeting it).

Example: Step b) (Define thing to do)
Cut and shape hair in the ways asked for by customers.

c) List one personality characteristic required on your job (e.g., be friendly).

Example: Step c) (List personality characteristic)
Be friendly.

d) Define the personality characteristic required by your job.

Example: Step d) (Define personality characteristic)
Talk to customers while styling.

e) Develop a scale to measure each of the two requirements. Use a 3-point scale - above requirements, meet requirements, below requirements.

Example: Step e) (Scale the do requirement)
Above: Can do 11 or more different styles.
Meet: Can do 8-10 different styles.
Below: Can do 7 or less different styles.

Example: Step e) (Scale the personal characteristics requirement)
Above: Talk with about 50% of time or more.
Meet: Talk with about 25-50% of time.
Below: Talk with less than 20% of the time.

Step a) (List thing to do)

Step c) (List personality characteristics)

Step b) (Define thing to do) (22)

Step d) (Define personality characteristics) (23)

Step e) (Scale the do requirement)

(24)
(25)

Step e) (Scale the personality characteristic requirements)

(26)
(27)

Form 2: Scoring Manual

Question 1, Cluster Awareness: Score one point for each correct job listed.

Question 2, Cluster Ladder Awareness: Score one point for each related job. NOTE: Related means that most of the preparation the student is receiving in his/her high school program would be useful in the more advanced job.

Question 3, Value Awareness: Score one point for each value given in working conditions.

Score one point for each value given in benefits.

Score one point for each value given in activities.

Score one point for end value given in requirements.

Score one point for each correct evaluation of how well the job measures up, in each of the 4 areas.

Question 4, Value Information: Score one point for each requirement definition which is operationalized. NOTE: A thing is operationalized if it is observable and measurable. Things can be operationalized in terms of:

a) Number or amount (e.g., do 8-10 different hair styles, have 2 years of post high school education).

b) Amount or percent of time doing behavior (e.g., concentration = amount of time student can spend attending to the task without taking a break).

Score one point for each step in each requirement scale which is operationalized.

Score one point for each step in each requirement scale which is accurate in terms of content (e.g., the operationalized level given does really meet requirements. NOTE: If the scale step is not operationalized it receives a zero score on accuracy).

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APPENDIX J

CAVC CAREER DEVELOPMENT SURVEY

Form 3

(1)

Name____________________(2) Home School____________________(3)

CAVC Program____________________(4) Date____________________(5)

CAVC Instructor____(6) 12 (7)

Home School Counselor____________________(8) CAVC Counselor____________________(9)

I am a: (Circle One) 1 Female 2 Male (10)

I am a: (Circle One) 1 Junior 2 Senior (11)

This semester your program added some new material. The new material was added to help you learn more about yourself and to help you plan your career after high school.

We want to know how well the career material helped you. We want to know how we can make it better. This survey will ask you some questions. Please read each one carefully. Then, answer the questions honestly. THIS IS NOT A TEST. But it will tell us what we must do to better help you learn about yourself and plan your career after high school.

(12) After you finish high school, what are your plans? (Circle One)

1. I am not sure just what I will do.
2. I plan to get a job.
3. I plan to go to a 2-year school.
4. I plan to go to a 4-year school.
5. I have plans other than a job or school.

(13) 1. Think about the things that are important to you in choosing a job. These are your values. Choose 3 to define. Defining means describing the value in such a way that someone else could tell if you were receiving the value.

Examples:

VALUE	DEFINITION
Helping People	The number of hours per day I spend doing things that make others feel better.
Vacation	The number of days a year I have off.
1) ____________________	______________________________ ______________________________
2) ____________________	______________________________ ______________________________
3) ____________________	______________________________ ______________________________

2. For each of the 3 values you have defined, develop a scale that you could use to measure how good any job is in terms of each of your 3 values. Each scale should give the "great level" of the value, the "O.K." level of the value, and the "poor level" of the value.

Examples:

VALUE		SCALE
1) Helping People	Great:	6 or more hours per day doing things that make others feel better.
	O.K.:	3-4 hours per day doing things that make others feel better.
	Poor:	1 or less hours per day doing things that make others feel better.
2) Vacation	Great:	1 month per year or more off.
	O.K.:	2 weeks per year off.
	Poor:	less than 1 week per year off.

	VALUE		SCALE
(14) 1.	________________________	Great:	____________________________ ____________________________
		O.K.:	____________________________ ____________________________
		Poor:	____________________________ ____________________________
2.	________________________	Great:	____________________________ ____________________________
		O.K.:	____________________________ ____________________________
		Poor:	____________________________ ____________________________
3.	________________________	Great:	____________________________ ____________________________
		O.K.:	____________________________ ____________________________
		Poor:	____________________________ ____________________________

(15) 3. Weight each of the 3 values for how important it is. Use a scale from 1 to 10, where 1 is the least important value and 10 is the most important value.

	VALUE NAME	WEIGHT
1.	______________________	( )
2.	______________________	( )
3.	______________________	( )

4a. List two jobs that interest you and for which your program is preparing you.

Job 1____________________________________

Job 2____________________________________

(16) 4b. Show how you would use the 3 values, their weights, and the scales you developed to decide between the 2 jobs.

5. List the job that your program is preparing you to enter right after high school that you like best.

Job Name____

While in high school, what academic courses, vocational programs and work experiences help you to prepare for this job.

Academic Courses (17)	Vocational Courses Or Programs (18)	Work Experiences (19)
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.
5.	5.	5.
6.	6.	6.
7.	7.	7.
8.	8.	8.
9.	9.	9.
10.	10.	10.

6. List a job that you might like to have someday that is related to your vocational program but for which you need a post high school education and/or training.

Job Name____

After high school, what academic courses, vocational programs and work experiences will help you to prepare for this job.

Academic Courses (20)	Vocational Courses Or Programs (21)	Work Experiences (22)
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.
5.	5.	5.
6.	6.	6.
7.	7.	7.
8.	8.	8.
9.	9.	9.
10.	10.	10.

Form 3: Scoring Manual

Question 1, Value Clarification: Score one point for each value definition which is operationalized.

(13) NOTE: A value is operationalized if it is defined in observable and measurable terms. A value can be operationalized in terms of:

a) Amount or Number - e.g., vacation = number of days off; salary = amount of dollars I make.

b) Amount or Percent of Time Doing ____________ - e.g., helping people = amount of time I do things that make others feel better.

Question 2, Value Scaling: Score one point for each step in each scale which is operationalized.

(14)

NOTE 1: A step in a scale is operationalized if it gives a concrete amount of the value in terms of amount, number, amount of time doing something, e.g., scale for helping people:

Great - 6 or more hours per day doing things to make others feel better.
O.K. - 3-4 hours per day doing things to make others feel better.
Poor - 1 or less hours per day doing things to make others feel better.

NOTE 2: If the student operationalized the behavior in the definition but not in the scale, this is acceptable.

O.K. Example: Definition for helping people - amount of time doing things that make others feel better.

Scale = 6 or more hours helping people.
3-4 hours helping people.
1 or less hours helping people.

Question 3, Weights: Score one point for each value weighted from 1 to 10 inclusive.

(15)

Question 4, Decision-Making: Score one point if each value is interacted with each job. (16)

PLUS

Score one point if each weighted value is interacted with each job.

PLUS

Score one point if each job is examined in terms of all values.

PLUS

Score one point if each job is examined in terms of all weighted values.

Score for Question 4 equals total maximum score in 4.

Example Answers and Scoring:

I like Job #1 because it meets some of my values better (this would score 1 point for looking at each job in terms of all values.

NAME	WT.	Job 1______________	Job 2______________
Value________________	( )	XX	X
Value________________	( )	XX -	
Value________________	( )	X	X

I like Job #1 because it gets more checks on my values. (This would score two points - each job has been looked at in terms of each value, and in terms of all the values).

NAME	WT.	Job 1______________		Job 2______________	
Value________________	(10)	+	10	-	-10
Value________________	(1)	o	0	o	0
Value________________	(5)	++	10	+	5
			+20		- 5

Above scores four points - it meets all the steps.

Question 5, Short-Term Planning: Score one point for each correct course listed.

(17)

Rate the percent of correct courses listed compared to what is needed. Use the scale below.

Level 5 - Has listed 80-100% of what is needed.
Level 4 - Has listed 60-79% of what is needed.
Level 3 - Has listed 40-59% of what is needed.
Level 2 - Has listed 20-39% of what is needed.
Level 1 - Has listed 0-19% of what is needed.

(18) Score one point for each correct pre-vocational or vocational program listed.

Rate the percent of correct pre-vocational or vocational programs listed compared to what is needed. Use the same 1-5 scale given above.

(19) Score one point for each related work experience which is listed.

Rate the percent of related work experiences listed compared to what is needed. Use the same 1-5 scale given above.

Question 6, Long-Term Planning: Score precisely the same as Question 5.

(20)
(21)
(22)

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APPENDIX K

CAVC CAREER DEVELOPMENT SURVEY

Form 4

(1)

Name____________________(2)__ Home School____________________(3)__

CAVC Program______________(4)__ Date________________________(5)__

CAVC Instructor__________________________________(6)________(7)__

Home School Counselor__________________ CAVC Counselor____________________(8)__

I am a: (Circle One) (9)
1 Female
2 Male

I am a: (Circle One) (10)
1 Junior
2 Senior

This semester your program added some new material. The new material was added to help you learn more about yourself and to help you plan your career after high school.

We want to know how well the career material helped you. We want to know how we can make it better. This survey will ask you some questions. Please read each one carefully. Then, answer the questions honestly. THIS IS NOT A TEST. But it will tell us what we must do to better help you learn about yourself and plan your career after high school.

After you finish high school, what are your plans? (Circle One)

(11)

1. I am not sure just what I will do.
2. I plan to get a job.
3. I plan to go to a 2-year school.
4. I plan to go to a 4-year school.
5. I have plans other than a job or school.

(12) 1. List the job for which your program is preparing you that you like the best.

Job Name____________________

2. Please answer as completely as you can the following questions about the job you listed in the above question.

a. What are the things you do in order to perform the job you like the best (e.g., style hair, take shorthand)?

(13) 1) ____________________

(14) 2) ____________________

3) ____________________

(15) 4) ____________________

5) ____________________

6) ____________________

7) ____________________

8) ____________________

9) ____________________

10) ____________________

b. What are the personality characteristics that a person must have to do well at the job you listed (e.g., be patient, be a stickler for detail)?

(16)

1) ____________________

2) ____________________

3) ____________________

4) ____________________

5) ____________________

c. What are the educational and/or training requirements for the job you listed?

(17)

____

____

d. What is the hourly pay range of the job you listed?

(18) __________to__________

e. What are the jobs to which you could advance from the job you listed?

(19) ______________________________

____

____

f. In what types of places can people in the job you listed find employment (e.g., a carpenter could work for a general contractor or in a large factory)?

(20)

1) ______________________________

2) ______________________________

3) ______________________________

4) ______________________________

5) ______________________________

g. What are the working conditions under which you must perform (e.g., rough carpenter works outside, with long hours at peak periods, usually with other people, etc.)?

(21)

1) ______________________________

2) ______________________________

3) ______________________________

4) ______________________________

5) ______________________________

6) ______________________________

7) ______________________________

8) ______________________________

9) ______________________________

10) ______________________________

h. What is the present labor market supply and demand situation for the job you listed?

(22) ______________________________

____

3. List below the sources you could use to identify employers who might hire people in the job you listed.

(23) ______________________ ______________________

(24) ______________________ ______________________

______________________ ______________________

4. It will help you get a job if you can prove to an employer that you can do the job, are dependable and can get along with others. List the things you could use to prove these things to an employer. You prove something when you list a factual behavior or accomplishment from your past.

a. I can do the job as indicated by the fact that:

(25) Example: I received seven compliments last semester from my vocational teachers about how well I did my work.

1) ______________________

____

2) ______________________

____

3) ______________________

____

b. I am dependable as indicated by the fact that:

(26) Example: I was always on time to my classes.

1) ______________________

____

2) ______________________

____

3) ______________________

____

c. I can get along with others as indicated by the fact that:

(27) Example: I was elected to be vice-president of the future welders club.

1) ______________________________

____

2) ______________________________

____

3) ______________________________

____

5. What are the things you should bring with you in order to fill out an application?

(28) ____________________ ____________________

____________________ ____________________

____________________ ____________________

____________________ ____________________

____________________ ____________________

6. What are the things you need to know or do in order to be sure you are ready for the interview and are there when you are supposed to be (e.g., have exact directions to place; have neat, clean clothes ready)?

(29) 1) ______________________________

2) ______________________________

3) ______________________________

4) ______________________________

5) ______________________________

6) ______________________________

7) ______________________________

8) ______________________________

9) ______________________________

10) ______________________________

7. What are the things you should do during the interview?

(30) 1) ______________________________

2) ______________________________

3) ______________________________

4) ______________________________

5) ______________________________

6) ______________________________

7) ______________________________

8) ______________________________

9) ______________________________

10) ______________________________

8. What are the things you should not do during the interview?

(31) 1) ______________________________

2) ______________________________

3) ______________________________

4) ______________________________

5) ______________________________

9. Below are some questions employers often ask. Try to answer each question. Be sure to include a past accomplishment that helps to prove that you would be a good employee for the job you listed in item #1.

a. Why do you want to work for us?

(32) ______________________________

____

____

____

b. Did you enjoy school?

(33)

c. What are your future plans?

(34)

d. What are your deficits?

(35)

10. Read the interview statement. Then write exactly what you would say to him/her. Be sure to show you understand the interviewer's position. Then use one of your past accomplishments to convince the interviewer that it would be different with you. (36)

Interviewer: The last time I hired a kid just out of school, she left just about the time she was really getting useful.

Your Response:

Form 4: Scoring Manual

(12) Question 1, Job Goal: Score one point if listed a job for which the program is preparing him/her.

Question 2, Job Information:

(13) a) Activities

(14) Score one point for each activity listed.

Score one point for each activity listed which would identify this job as being part of its cluster (e.g., being on time is not a thing to do that identifies the job as part of its cluster; typing is an activity that identifies the job as part of the Business and Office Cluster).

(15) Score one point for each activity that would identify this job as being tied to a specific program (e.g., typing is not an activity that identifies a job as part of a program in the Business and Office Cluster; taking shorthand is an activity that identifies a job as part of the Secretarial/Stenographic Program).

(16) b) Personality Characteristics

Score one point for each correct personality characteristic.

(17) c) Training Requirements

Score one point for each correct requirement listed.

(18) d) Salary

Score one point if both ends of the hourly pay are within $ .50 per hour.

(19) e) Advancement

Score one point for each correct job listed.

(20) f) Places of Employment

Score one point for each correct place listed. NOTE: These should not be employer names like Kellogg's, but rather more general titles - factories or cereal factories.

(21) g) Work Conditions

Score one point for each correct working condition.

(22) h) Supply and Demand

Score one point if there is a specific ratio given (e.g., 1 applicant to every 125 openings) or if there is a specific description of the market condition (e.g., no new jobs are being created, demand is only to replace workers who leave the job), a simply good or bad does not count.

(23) Question 3, Job Sources: Score one point for each place or materials source listed.

NOTE: Materials are things like yellow pages or want ads; places are offices like MESC, CAVC Placement Office.

Score one point for each type of person.

(24) NOTE: Type = relative, friends, professionals.

Question 4, Assets:

(25) a) Skill Assets. Score one point for each fact based asset listed that shows the student can do the job.

NOTE: An asset is fact based if it is numerically tied to a specific behavior of self or others. Example: I received frequent compliments from teachers about how well I did my work. Or, I was almost always able to finish my work faster than three-fourths of the other students in the class. Or, my GPA in vocational courses was B+. An asset is specific if it is an observable behavior. An asset can also be a simple behavior accomplishment. Example: I was on the honor roll in my senior year.

(26) b) Dependability Assets. Score one point for each fact based asset that shows the student is dependable.

(27) c) Interpersonal Assets. Score one point for each fact based asset that shows the student can relate to others.

(28) Question 5, Application: Score one point for each correct answer.

(29) Question 6, Pre-Interview: Score one point for each correct answer.

(30) Question 7, Interview Do's: Score one point for each correct answer.

(31) Question 8, Interview Don'ts: Score one point for each correct answer.

(32)
(33)
(34) Question 9, Question Answering: Score one point for each answer which includes (a) an answer to the question, and (b) introduces a fact-based asset.

(35) Question 10, Responding: Rate the response as follows:

(36)
Accurate Feeling
Accurate Reason for the Feeling
Appropriate Accomplishment to Counteract

Level 1 - None of the above.
Level 2 - One of the above.
Level 3 - Two of the above.
Level 4 - All of the above.

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APPENDIX L

Students Knowing about Themselves

In my program:

Items:	This item was not taught.	This item was mentioned in passing.	This item was mentioned and stressed as important.	This item was covered in some detail.	This item was taught in great detail.
(6) 1. Knowing what kinds of work interests you.	1	2	3	4	5
(7) 2. Knowing what kinds of work you can do well.	1	2	3	4	5
(8) 3. Knowing what your attitudes are toward work.	1	2	3	4	5
(9) 4. Knowing what is important to you in choosing a job.	1	2	3	4	5
(10) 5. Knowing that you can find the type of work that will be rewarding for you.	1	2	3	4	5
(11) 6. Knowing if you have the ability to meet the entry requirements of the job or school you want.	1	2	3	4	5

Students Knowing about Themselves (Continued)

	Very uncertain of themselves.	Uncertain of themselves.	Certain of themselves.	Very certain of themselves.
(12) 7. Overall, how well did most students know themselves in relationship to the world of work before they took the program? (Circle one)	1	2	3	4

	Much less certain of themselves.	Less certain of themselves.	The same as they were.	More certain of themselves.	Much more certain of themselves.
(13) 8. Overall, how well do most students know themselves in relationship to the world of work now, because of the program? (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important	Very important.
(14) 9. When planning a career, how important is it for students to know themselves in relationship to the world of work? (Circle one)	1	2	3	4

Students Knowing about Careers

In my program:

Items:	This item was not taught.	This item was mentioned in passing.	This item was mentioned and stressed as important.	This item was covered in some detail.	This item was taught in great detail.
(15) 1. Knowing how academic courses you took relate to the work you think you might do.	1	2	3	4	5
(16) 2. Knowing how the vocational skills you are learning relate to the work you think you might do.	1	2	3	4	5
(17) 3. Knowing how to tell how jobs are similar and how they are different.	1	2	3	4	5
(18) 4. Knowing how your job will affect the way you live your life.	1	2	3	4	5
(19) 5. Knowing what jobs your program is preparing you to enter.	1	2	3	4	5
(20) 6. Knowing the working conditions in which you will perform your job.	1	2	3	4	5
(21) 7. Knowing where to find information about jobs.	1	2	3	4	5
(22) 8. Knowing what questions you need to ask to get the information you need to choose a job.	1	2	3	4	5
(23) 9. Knowing what jobs meet your interests.	1	2	3	4	5
(24) 10. Knowing what employers expect of employees.	1	2	3	4	5

Students Knowing about Careers (Continued)

	Nothing.	A little.	Some.	A lot.
(25) 11. Overall, how much did most students know about jobs before they took this program? (Circle one)	1	2	3	4

	They are much more confused.	They are more confused.	They know the same as before.	They know some more.	They know a lot more.
(26) 12. Overall, how much more do most students know about jobs they can choose because of taking this program? (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very Important.
(27) 13. When planning a career, how important is it for students to know about jobs they can choose? (Circle one)	1	2	3	4

Students Knowing How to Choose and Plan for the Best Job for Them

Items:	In my program: This item was not taught.	This item was mentioned in passing.	This item was mentioned and stressed as important.	This item was covered in some detail.	This item was taught in great detail.
28) 1. Knowing how to choose an occupation.	1	2	3	4	5
29) 2. Knowing how to develop a plan to reach your occupational goals.	1	2	3	4	5
30) 3. Knowing the supply and demand situation for your job.	1	2	3	4	5
31) 4. Knowing where you can go for further training in your field of work.	1	2	3	4	5
32) 5. Knowing your job goal.	1	2	3	4	5
33) 6. Knowing what plan to follow to get to your job goal.	1	2	3	4	5
34) 7. Knowing how to use personal values and interests to choose a job.	1	2	3	4	5
35) 8. Knowing the requirements of the job(s) in which you are interested.	1	2	3	4	5
36) 9. Knowing how to evaluate job offers.	1	2	3	4	5

Students Knowing How to Choose and Plan for the Best Job for Them (Continued)

	Very bad.	Bad.	Good.	Very good.
(37) 10. Overall, how well could most students make choices and plans about jobs before they took this program? Before the course they were . . . (Circle one)	1	2	3	4

	Much more confused.	More confused.	The same as before.	Somewhat better.	A lot better.
(38) 11. Overall, how well can most students make choices and plans about jobs now, because of taking this program? Because of the course they are . . . (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very important.
(39) 12. When planning a career, how important is it for students to have the skills to choose and plan for jobs? (Circle one)	1	2	3	4

Students Knowing How to Get Accepted by an Employer

In my program:

Items:	This item was not taught.	This item was mentioned in passing.	This item was mentioned and stressed as important.	This item was covered in some detail.	This item was taught in great detail.
(40) 1. Knowing how to talk and act with interviewers.	1	2	3	4	5
(41) 2. Knowing how to talk and act with people on the job.	1	2	3	4	5
(42) 3. Knowing the things which will affect your success on the job.	1	2	3	4	5
(43) 4. Knowing the sources that can be used to develop a list of places where you could be employed.	1	2	3	4	5
(44) 5. Knowing how to actually use the job sources to help you develop your places of possible employment.	1	2	3	4	5
(45) 6. Knowing how to make out a job application.	1	2	3	4	5
(46) 7. Knowing the assets you have to offer to an employer.	1	2	3	4	5
(47) 8. Knowing how to prepare for an interview.	1	2	3	4	5
(48) 9. Knowing the questions you will have to answer in an interview and how to answer them.	1	2	3	4	5
(49) 10. Knowing how to evaluate jobs advertised in the want-ads.	1	2	3	4	5

Students Knowing How to Get Accepted by an Employer (Continued)

In my program:

Items:	This item was not taught.	This item was mentioned in passing.	This item was mentioned and stressed as important.	This item was covered in some detail.	This item was taught in great detail.
(50) 11. Knowing how to request an interview by phone.	1	2	3	4	5
(51) 12. Knowing how to request an interview by letter.	1	2	3	4	5
(52) 13. Knowing how to write a resume.	1	2	3	4	5
(53) 14. Knowing how to terminate a job.	1	2	3	4	5

	Nothing.	A little.	Some.	A lot.
(54) 15. Overall, how much did most students know about placing themselves before they took this program? Before the course they knew . . . (Circle one)	1	2	3	4

Students Knowing How to Get Accepted by an Employer (Continued)

	They are much more confused than before.	They are more confused than before.	They know the same as before.	They know some more.	They know a lot more.
(55) 16. Overall, how much more do most students know about placing themselves now, because of taking this program? (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very important.
(56) 17. When planning a career, how important is it to have the skills to get placed on a job or at a school you want? (Circle one)	1	2	3	4

Students Knowing How to Perform the Skills Your Job Requires

In my program:

	Items:	This item was not taught.	This item was mentioned in passing.	This item was mentioned and stressed as important.	This item was covered in some detail.	This item was taught in great detail.
(57) 1.	Knowing how to use the tools and equipment required of the job to which your program leads.	1	2	3	4	5
(58) 2.	Knowing how to do the math required by the job you want.	1	2	3	4	5
(59) 3.	Knowing how to read the things you have to read on the job you want.	1	2	3	4	5
(60) 4.	Knowing how to write well enough to handle the job you want.	1	2	3	4	5
(61) 5.	Knowing how to make the decisions required by the job you want.	1	2	3	4	5
(62) 6.	Knowing how to set a work goal and lay out all the steps needed to reach job goals.	1	2	3	4	5
(63) 7.	Knowing the procedure which needs to be followed in order to assure safety on the job.	1	2	3	4	5

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Students Knowing How to Perform the Skills Your Job Requires (Continued)

	Not do these skills.	Do a few of these skills.	Do some of the skills.	Do almost all of the skills.
(64) 8. Overall, how well could most students do the skills your course taught, before they took the program? Before the program they could . . . (Circle one)	1	2	3	4

	They are much more confused than before.	They are more confused than before.	They are the same as before.	They are better than before.	They are much better than before.
(65) 9. Overall, how well can most students do the skills your program taught, now, because of taking the program? Because of the program . . . (Circle one)	1	2	3	4	5

	Very unimportant.	Unimportant.	Important.	Very important.
(66) 10. When planning a career, how important is it for students to be able to do the skills required by the job or school? (Circle one)	1	2	3	4

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